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THE ROYAL AUSTRALIAN NAVAL MEDICAL SERVICE.

CONTRIBUTED BY SPECIAL REQUEST BY THE DIRECTOR OF NAVAL MEDICAL SERVICES.

A NAVY, being the first line of defence of an island continent, should be kept ready for service at all times as regards material and personnel. It is with the latter that the medical officer is most intimately concerned.

In spite of the enormous improvements in the armament and propelling machinery of ships, the "man behind the gun" still remains a decisive factor. It is therefore necessary that he should be kept in an efficient condition. The hygienic state of his surroundings, the suitability of his clothing, the quality and quantity of his food and the purity of his water supply must be under the constant supervision of the medical officer. Should he be sick or injured, he must be cared for and made fit for service as soon as possible.

A ship in full commission is a self-contained fighting unit, ready for service at any time, and there is no room in such an organization for any officer or man who is not physically and mentally fit for his work.

The medical officer can be compared to a medical man who is both medical officer of health and general practitioner. His duty is to prevent disease as far as possible and, when it occurs, to treat it to the best of his ability. It will be seen that, to carry out these duties efficiently, it is necessary to have a body of medical officers who, in addition to their knowledge of medicine and surgery, must be experienced in the general work of the Naval Service and of the particular duties of officers and men in their various departments. This experience is not gained in a day and the medical officer usually finds that a considerable period elapses before he feels able to stand on his own feet and to deal in a satisfactory manner with the many service problems affecting his department. On this account, and in order that he may more early adapt himself to the somewhat abnormal life of the Naval Service, it is advisable that the medical man wishing to join the service should enter as early as possible.

The financial advantages of early entry will be readily appreciated if the scale of pay is consulted.

Increments of pay occur after definite periods of service; the younger the officer on entry, the younger he is when he reaches the higher ranks, with all their advantages, and the greater is the accumulation of deferred pay on retirement.

In contrasting the pay with income earned in practice, the following points must be considered:

(*a*) The cost of living in a naval mess is comparatively small.

(*b*) Beyond the expenditure for a pocket case and stethoscope, there is no outlay on furniture, instruments, motor-car, etc., which so often pile a load of debt on the shoulders of a young practitioner at the outset of his career.

(*c*) The income, though fixed, is certain and increases in a regular manner.

(*d*) Compensation for injuries received or sickness contracted in the course of duty is provided for in the Financial Regulations.

(*e*) The system of deferred pay insures for an officer on leaving the service capital to purchase a practice or otherwise establish himself on shore. Should he die, his deferred pay is available for his next-of-kin or legatee, as the case may be.

Though the duties of a naval medical officer give him a wide experience of a peculiar kind, it is often objected that he has little opportunity for clinical work and therefore he becomes rusty. This, to a certain extent, is true, but is more apparent than real. If a medical officer only takes the trouble to examine thoroughly every patient who comes before him, he will find much to interest him. He has ample time and every patient is under his constant supervision, so that he can insure that any directions he gives, are carried out to the letter. Every ship carrying a medical officer is provided with a microscope and bacteriological case and nearly all ships are provided with an X-ray apparatus, so that there is no lack of opportunity of investigating properly every injury or disease. The periodical examination of ships' companies and recruits affords an experience of the variations of the normal, which is good groundwork for the investigation of disease. Nevertheless, it is admitted that more clinical work is required and, in order not to handicap the sea-going officer, the principle of post-graduate courses at regular intervals has been approved.

Endeavour is made to make periods of sea service and shore service in depôts and training establishments, alternate at regular intervals. A Naval Hospital exists at Flinders Naval Depôt and a Naval Ward, manned by Naval Medical Staff, has been established in the Prince of Wales Hospital at Sydney, so that medical officers have an opportunity of doing hospital work in the service itself.

Opportunities often arise in the service for the study of allied sciences, such as meteorology, botany, zoology, anthropology; should an officer wish to take up any research work, he will be encouraged and assisted as far as possible.

The social side of the service is attractive and existence in a happy ward-room is very pleasant. Sport is encouraged in the Navy, as it promotes physical fitness and developes a spirit of *camaraderie* which is invaluable to the morale of a fighting service. The amount of leave allowed—forty-two days per year on full pay—is very generous, so that life on board ship need not become monotonous. No person is more ready to recognize and appreciate a man who is keen on his job than a naval officer or man. The peculiar and personal nature of the doctor's work brings him into close contact with all ranks and ratings and, if he but honestly makes an endeavour to carry out his duties thoroughly and if he uses a modicum of tact in so doing, he will gain the confidence and goodwill of as fine a collection of men as any community can boast of. Should he do so, he may well be proud of it.

The particulars of service, rate of pay, etc., are shown hereunder in full detail.

Qualifications.

Every candidate for admission to the Medical Branch of the Royal Australian Navy must not be under twenty-one years nor over twenty-eight years of age when accepted for service. (For the present the age-limit has been raised to thirty-eight years.)

Every candidate must furnish an application on the prescribed form and must attach to his application a certified extract from the register of his birth or, if this cannot be obtained, a certificate of his baptism or other documentary evidence, accompanied by a statutory declaration made by his parents or guardians before a Justice of the Peace, stating the exact date of birth.

Candidates must be sons of natural-born British subjects. In doubtful cases the burden of clear proof will rest upon the candidate himself, his parents or guardians. Before entering as Surgeon-Lieutenant in the Royal Australian Navy every candidate must declare:

(*a*) His age and place of birth.

(*b*) That he is of pure European descent and the son of natural-born British subjects.

(*c*) That he labours under no mental or constitutional disease or weakness nor any other imperfection or disability which may interfere with the most efficient discharge of the duties of a medical officer in any climate.

(*d*) That he is ready to engage for general service at home or abroad as required.

(*e*) Whether he holds or has held any positions or appointments in the public service.

(*f*) That he is a duly registered practitioner under the *Medical Acts* of the States or that he holds qualifications which entitle him to become a legally registered medical practitioner under these *Medical Acts*, giving the date of his registration as a medical student or of his beginning his professional studies.

(*g*) What medical or surgical diplomas he has obtained and the appointments held since obtaining his qualifications.

The Dean of the Faculty of Medicine of the Australian University where the candidate was a student or other professional gentleman may be requested to render to the Naval Board a confidential

report as to the candidate's character, conduct, professional ability and fitness to hold a commission in the Royal Australian Navy. Candidates from other schools will be dealt with on their merits, but no candidate will be accepted unless he can produce most satisfactory testimonials.

Candidates will, when possible, be interviewed by the Director of Naval Medical Services and will be required to present themselves for medical examination as to physical fitness for service in the Royal Australian Navy.

The Naval Board may direct applicants, after passing the physical test, to present themselves for competitive examination held by an Examining Board appointed by the Naval Board from nominations by the Universities of Sydney, Melbourne and Adelaide. No candidate will be permitted to sit more than twice for this examination.

The candidate, on entry, will be given the rank of Surgeon-Lieutenant and he will be on probation for the first year after commencing naval duties. After the probationary service his appointment will be confirmed in this rank if recommended by the Director of Naval Medical Services, the seniority to date from the date of probationary appointment. A candidate, however, who at the time of entry into the Medical Branch holds or is about to hold an appointment as a medical or surgical officer at a recognized civil hospital, may be permitted to serve in such civil appointment, provided the period of service does not exceed one year from the date of entry, provided always that a request for this concession is made at the time of application for an appointment to the Royal Australian Navy as a permanent Surgeon-Lieutenant. This concession is not retrospective. Pay from Naval Funds will be withheld from gentlemen so serving, but the time concerned will count for seniority and for purpose of increase of active pay and deferred pay, if approved by the Naval Board. The names of these candidates will be placed in a separate list in the official Navy list from the date of entry, but they will not assume the title of Surgeon-Lieutenant, Royal Australian Navy, until they commence naval duties. They will then be transferred to the Surgeon-Lieutenants' List in their original order and enter on the year of probation.

As a general rule Surgeon-Lieutenants on commencing naval duties will be appointed to one of His Majesty's Australian depôts or ships carrying a senior medical officer, in order that they may become acquainted with service conditions before being sent in charge of a ship.

Medical officers on the Permanent List will be appointed to shore establishments or harbour ships and sea-going ships in rotation, so far as the exigencies of the service permit.

Surgeon-Lieutenants are required to provide themselves with the regulation pocket case of instruments and stethoscope, other necessary instruments, drugs and utensils being supplied by the service.

A medical library is supplied to ships and establishments where a medical officer is borne.

Relative Rank.

Navy.		Army.
Medical Branch.	Military Branch.	
Surgeon-Lieutenant	Lieutenant	Captain
Surgeon-Lieutenant-Commander	Lieutenant-Commander	Major
Surgeon - Commander	Commander	Lieutenant - Colonel (but junior to this rank)
Director of Naval Medical Services	Captain	Colonel

Pay and Allowances for Medical Officers in the Royal Australian Navy.

Time Served in Rank.	Active Pay *per diem.* s. d.	Deferred Pay *per diem.* s. d.
Surgeon-Lieutenant—		
"On Entry"	28 0	5 0
After Three Years	32 0	5 9
Surgeon-Lieutenant-Commander—		
"On Promotion"	38 0	6 6
After Three Years	43 0	7 0
Surgeon-Commander—		
"On Promotion"	48 0	8 0
After Three Years	52 0	9 6
After Six Years	56 0	10 0
After Nine Years	60 0	10 0
Surgeon-Captain—		
"On Promotion"	65 0	11 3
After Three Years	70 0	11 6
After Six Years	75 0	11 6
After Nine Years	80 0	11 6

Director of Naval Medical Services.

The appointment of the Director of Naval Medical Services will usually be made from Surgeon-Commanders of at least six years' seniority. This is a special appointment, the salary attaching to which will be fixed by the Governor-General in Council.

Additional Emoluments.

(*a*) Medical attendance in kind, subject to such regulations as may be approved by the Naval Board.

(*b*) On first joining, a uniform gratuity of £60 (temporary surgeons, £30) will be paid to officers. In the event of discharge within twelve months, except by invaliding, a proportionate part of this gratuity shall be refunded.

(*c*) Rations will be supplied, subject to such regulations as may be prescribed by the Naval Board. Ration allowance, 3s. 6d. *per diem*, will be paid to officers on leave or detached service.

(*d*) Lodging allowance will be paid to officers where not provided with accommodation or quarters on shore: To Surgeon-Lieutenants, 4s. *per diem*; £73 *per annum*. To Surgeon-Lieutenant-Commanders, 5s. 3d. *per diem*; £95 16s. 3d. *per annum*. To Surgeon-Commanders, 5s. 6d. *per diem*; £100 7s. 6d. *per annum*.

(*e*) Flag allowance, to the senior medical officer of the flagship, 5s. *per diem*; £91 5s. *per annum*.

(*f*) Administrative allowance, to the Director of Naval Medical Services (if a Surgeon-Commander under six years' seniority not on consolidated pay) and to the Assistant to the Director of Naval Medical Services (if on sea-going pay), 3s. *per diem*; £54 15s. *per annum*.

Private Practice.

Private practice will only be allowed when the approval of the Naval Board is previously obtained by a medical officer desirous of attending on patients not provided for in the regulations. The approval of the Naval Board must be obtained for the acceptance of fees. Private practice must not in any way interfere with nor take any officer from the vicinity of his service duties, which must be considered first in every case.

Retirement.

Medical officers will be retired at any time when found to be physically unfit for general service.

Voluntary retirement may take place at any time subject to the approval of the Naval Board and Section 13 of *Naval Defence Act, 1910-1912*, as follows:

(1) Except in time of war, an officer may, by writing under his hand, resign his commission at the expiration of any time not being less than three months from the date of receipt of the resignation.

(2) The resignation shall not have any effect until it has been accepted by the Governor-General.

(3) For special reasons the Governor-General may accept any resignation at any time after the receipt thereof.

Officers are liable to be dismissed from the service or to be compulsorily retired at any time for misconduct, in which case they forfeit all claim to deferred pay; officers may also be dismissed for inefficiency.

Deferred Pay.

(*a*) Deferred pay shall be payable to an officer on retirement or resignation. Payment may in special cases, subject to the approval of the Naval Board, be made to officers on completion of seven years' service since entry or since last payment of deferred pay.

(*b*) In case of the death of an individual whilst in the service the full amount of accumulated deferred pay will be payable to his estate.

(*c*) Persons dismissed from the Navy for misconduct as defined by the *Naval Discipline Act* will forfeit all claim to deferred pay.

(*d*) Interest at 3½% is added.

Compensation.

Compensation in the case of medical officers on account of wounds or injuries received or diseases contracted on duty is provided for in the "Financial and Allowance Regulations" as follows:

Compensation may be recommended by a Board consisting of three medical officers appointed to inquire into the case of any member of the Permanent Forces who is retired or discharged on account of wounds or injuries received or disease contracted due to service, provided the wound, injury or disease was not due to the member's fault. The medical officers selected shall be the most senior available. When three medical officers are not available, two senior medical officers may form a Board. The compensation shall be according to the following scale:

(*a*) The maximum amount.
(*b*) Three-quarters of the maximum amount.
(*c*) One-half of the maximum amount.
(*d*) One-quarter of the maximum amount.
(*e*) One-eighth of the maximum amount.
(*f*) One-sixteenth of the maximum amount.

The maximum amount shall be a sum equivalent to three years' pay, including any allowance in cash or kind for quarters, clothing and rations at the rate received, allowed or valued at in these Regulations at the date of his retirement or discharge. The maximum amount shall only be awarded in case of total disability to earn a livelihood. In case of partial disability the compensation shall be less than the maximum amount and shall be fixed in accordance with the scale, so that the amount awarded shall be proportionate to the degree of disability of the member, as may be determined by the Naval Board.

Compensation may be recommended by a similar Board for the case of the widow and family of any member of the Permanent Forces who is killed on duty or dies of any disease contracted due to service, if the death or disease was not due to the member's fault. The amount of compensation awarded shall not exceed three years' pay, including allowances for quarters and rations, at the rate the member received or was allowed at the date of his death. No claim for compensation shall be considered unless it is made within twelve months after the death of the member.

Furlough.

Articles 45 to 49 of the "Financial Regulations" provide as follows:

45. Where any person, including members of the Permanent Sea-Going Forces, has continued in the service of the Commonwealth under the provisions of the *Defence* or *Naval Defence Acts* at least twenty years, the Governor-General may grant to him, on the recommendation of the Naval Board, leave of absence for a period not exceeding twelve months on half pay or six months on full pay, in addition to annual leave granted during such service.

46. Where a person has become transferred or appointed from any position of a permanent nature under the State or Commonwealth to a permanent position in the service of the Commonwealth, under the provisions of the *Defence Act* or *Naval Defence Act*, all continuous service of such person under the State or Commonwealth shall, for the purpose of furlough, as provided in Regulations 45 and 48, be reckoned as service in the service of the Commonwealth under the provisions of the *Defence Act* or *Naval Defence Act*.

47. Where a person not having been granted such leave of absence provided in Regulations 45 and 48 retired from the service after at least twenty years' service, the Governor-General, on the recommendation of the Naval Board, may authorize the grant to such person of six months' salary on retirement or upon the death of any person who has continued in the service for at least twenty years and has not been granted leave of absence under the provisions of Regulation 45, the Governor-General, on the recommendation of the Naval Board, may authorize the grant to the dependants of such deceased person of a sum equivalent to six months' salary of such person. Provided that where any such person has been reduced in position or salary through misconduct, such misconduct shall be taken into consideration in determining whether the whole or any portion of the prescribed leave of absence may be granted or in the event of retirement or death of any such person whether payment may be made under the conditions prescribed herein and as to the terms of such payment.

48. The Governor-General may, on the recommendation of the Naval Board, grant to any person of satisfactory service who is not eligible for the furlough prescribed in Regulation 45, leave of absence with full pay as follows:

Service of sixteen years and under twenty years: Five months.
Service of twelve years and under sixteen years: Four months.
Service of eight years and under twelve years: Three months.

Service of four years and under eight years: Two months.

Service of less than four years: One month.

Always provided that such person has attained the prescribed age for retirement or will attain the prescribed age for retirement on or before the expiration of such leave of absence.

In lieu of such leave the Governor-General may, on the recommendation of the Naval Board, authorize the grant of a sum equivalent to his salary for such period of leave or in the event of the death of any person who was eligible for but had not been granted the leave prescribed herein, may authorize payment to the dependants of such deceased person of a sum equivalent to the salary of such person for the period of leave which he could have been granted under this regulation.

49. In the case of persons on sea-going rates of pay, salary shall mean the total emoluments at date of granting furlough, including deferred pay and allowances for uniform, rations and quarters, whether drawn in cash or in kind.

Promotion.

A Surgeon-Lieutenant will be promoted to the rank of Surgeon-Lieutenant-Commander on attaining six years' seniority as Surgeon-Lieutenant, subject to the approval of the Naval Board and the following conditions: (*a*) That he has served two years at sea. (*b*) That he is recommended for advancement by the Director of Naval Medical Services.

Special promotions to the rank of Surgeon-Lieutenant-Commander will be made at the discretion of the Naval Board in cases of distinguished service or conspicuous professional merit. Such promotions will be exceptional and will not exceed one in three years. This limitation will not, however, apply to promotions for gallantry in action.

A Surgeon-Lieutenant-Commander will be promoted to the rank of Surgeon-Commander on attaining six years' seniority as Surgeon-Lieutenant-Commander, subject to the approval of the Naval Board and the following conditions: (*a*) That he has served two years at sea in the rank of Surgeon-Lieutenant-Commander. (*b*) That he has passed the qualifying examination. (*c*) That he is recommended for advancement by the Director of Naval Medical Services. (*d*) That he has never declined service except for reasons which were acceptable to the Naval Board.

Special promotion to the rank of Surgeon-Commander will be made at the discretion of the Naval Board in cases of distinguished service or conspicuous professional merit. Such promotions will be exceptional and will not exceed the rate of one in four years. This limitation will not apply, however, to promotions for gallantry in action. No officer shall be specially promoted unless he passes the examination prescribed for other Surgeon-Lieutenant-Commanders.

Examination for Rank of Surgeon-Commander.

The examination for the rank of Surgeon-Commander will be held once a year or more often as requisite and shall consist of written papers on medicine, surgery (clinical and operative), pathology, bacteriology, hygiene and naval hygiene. Questions on diseases of the eye, ear, nose and throat, also on anæsthetics and tropical diseases, may be included in the papers.

The papers will be set by an Examining Board appointed by the Naval Board from nominations by the Universities of Sydney, Melbourne and Adelaide. The examination will be held during a Surgeon-Lieutenant-Commander's third or subsequent year's service as such, at such time as will meet the requirements of the candidate.

Accelerated Promotion.

Certificates shall be granted to Surgeon-Lieutenant-Commanders at the qualifying examination for Surgeon-Commanders according to the following scale of marks: (*a*) 85% of marks for a special certificate. (*b*) 75% of marks for a first-class certificate. (*c*) 50% of marks for a pass.

An officer obtaining a special certificate will be eligible for an advance of eighteen months' seniority and one obtaining a first-class certificate will be eligible for an advance of twelve months' seniority. This accelerated promotion will not be granted on examination results alone; an officer must also be recommended as deserving of advancement. The Naval Board reserves the right to reduce this advancement if considered advisable by the Director of Naval Medical Services. If a Surgeon-Lieutenant-Commander fail to pass at the first attempt, the result of a successful second examination will not count towards accelerated promotion.

Compulsory Retirement.

Should a Surgeon-Lieutenant reach eight years' seniority without having attained the rank of Surgeon-Lieutenant-Commander, he will be required to resign his commission, except in exceptional circumstances and with the approval of the Naval Board.

A Surgeon-Lieutenant-Commander who fails to obtain a pass, shall be allowed to sit for the examination a second time, but will not be given a second course of instruction. If he fail at the second attempt, he will be compulsorily retired on reaching six years' seniority or on the second failure. Should a Surgeon-Lieutenant-Commander attain six years' seniority without having sat for the examination, he may be permitted to sit for the next examination, but, should he fail thereat, he will not be allowed a second trial, but will be compulsorily retired. Should he pass, his seniority as Surgeon-Commander may be dated back to the day on which he attained six years' seniority as Surgeon-Lieutenant-Commander, but he will only be eligible for increase of active pay and deferred pay from the date of passing the examination.

Hospital Study.

Three courses of hospital study will be available to medical officers of the Royal Australian Navy, as follows: (*a*) For Surgeon-Lieutenant-Commanders prior to the Surgeon-Commanders' examination. (*b*) For senior medical officers of fourteen years' seniority or over. (*c*) For any medical officer required to take up any special work.

Under Clause (*a*), Surgeon-Lieutenant-Commanders will, when they have attained between two and six years' seniority as such, subject to the exigencies of the service, as soon as possible take a six months' course of study at an approved medical

school, after which they must sit for the next Surgeon-Commanders' examination.

Surgeon-Lieutenant-Commanders attending a course shall submit a programme of their proposed studies to the Director of Naval Medical Services and shall produce certificates of attendance. The course shall include clinical medicine and surgery, operative surgery, pathology, diseases of the eye, ear, nose and throat and hygiene. Optional subjects are bacteriology, skiagraphy, electro- and serum-therapy. The cost will, up to a limit decided by the Naval Board, be borne by the service.

Under Clause (*b*), medical officers who have completed fourteen years' service, will be permitted, subject to the exigencies of the service, to take a three months' course to refresh their general knowledge. Officers shall submit a programme of their proposed studies to the Director of Naval Medical Services and shall produce certificates of attendance. The cost will, up to a limit decided by the Naval Board, be borne by the service. In special cases junior medical officers may be considered eligible to undergo this course.

Under Clause (*c*), the course will be governed by the nature of the special work the medical officer may be required to take up. The Naval Board will consider applications from medical officers for facilities to carry out research work. Each application will be considered on its merits.

Full pay, lodging and victualling allowances under the Regulations will be granted during the above courses.

Leave of Absence.

Leave of absence will be granted in accordance with the regulations for the permanent sea-going forces.

Emergency List of Medical Officers.

Medical officers on resigning their commissions, if they so desire and are recommended by the Director of Naval Medical Services, may be placed on the Emergency List of Medical Officers. Officers so enrolled are allowed to retain their commissions and wear the uniform of their rank. Only officers who continue to practise their profession, will be allowed to enrol on this List.

Medical officers whose names are placed on this List will not receive active pay, deferred pay or allowances of any kind or promotion when not employed. Medical officers of the Royal Navy, who may settle in Australia and on whom the Royal Navy does not possess prior claim, may enrol on this List.

War Service.

Medical officers on the Emergency List shall be liable to be called up for service in time of war or national emergency.

Pay and Allowances.

When on war service they will receive as from the date when first borne for duty pay and allowances as follows: Active pay, deferred pay, ration allowance and other allowances as for corresponding ranks in the Permanent Service.

Equipment Allowance.

When first called out for service in war or emergency, officers will be granted an equipment allowance of £30. No officer shall draw this allowance more than once whilst on the Emergency List.

Deferred Pay.

At the end of the period of war service, medical officers will receive in cash the amount of deferred pay earned during the period of war service, as provided in the regulations for the permanent forces.

Compensation for Injuries, etc..

Medical officers will also become entitled to compensation for injuries received or disease contracted on duty, or war pensions if provision is made by Parliament, in accordance with the terms and conditions prescribed for the permanent service.

Resignation.

Except during time of war, voluntary resignation will be permitted, but officers so withdrawing will be required to resign their commissions and will not be permitted to wear their uniform. Resignations during the period of war will be subject to the exigencies of the service.

On attaining the age of fifty-five years, officers will be compulsorily retired.

Officers will be communicated with annually up to the age of retirement. They will be requested to state whether they are fit for service.

Emergency medical officers may transfer to the Royal Australian Naval Reserve, when they will be allowed to count seniority on the Emergency List towards seniority in the Royal Australian Naval Reserve. In the Royal Australian Naval Reserve they will be eligible for appointment as District Naval Medical Officer and will be subject to the Royal Australian Naval Reserve Regulations as regards pay, etc.. They will wear the uniform of officers of the Reserve, but permission may be granted to wear the uniform of the emergency officers.

It will be seen that the present conditions of services are all that could be desired. Every encouragement is given to medical officers to specialize in branches of their profession and the Naval Board is always willing to give any proposal for the betterment of the medical services favourable consideration.

AUSTRALIAN ARMY MEDICAL SERVICES.

CONTRIBUTED BY SPECIAL REQUEST BY THE DIRECTOR-GENERAL OF MEDICAL SERVICES.

IN submitting the organization of the Australian Army Medical Services, it is first necessary to state that such organization is modelled from the Imperial, a few changes being made to meet local peace conditions.

To indicate further the basis on which the Australian organization is formed, it is also necessary to give the organization as it existed prior to the great war and to state the changes made in the post-

war organization as such occur under the various heads.

This post-war organization practically came into force from early July, 1921, and had not settled down to a uniform working system throughout the Commonwealth when the question of drastic reduction had to be considered.

Any reductions, however, can only be in the number of the Army Medical personnel to be trained annually, the organization in accordance with adopted principles remaining the same, that is, an organization for peace hereafter indicated which can be readily expanded to meet war requirements by the employment of medical practitioners, trained nurses and others with technical qualifications allied to the medical profession and active recruiting.

It will be noted no provision exists in time of peace for units on lines of communication. It is therefore necessary after completion of the proposed reduced organization to have in readiness a scheme whereby the existing field medical units can be brought up to war strength and the necessary general hospitals, stationary hospitals, casualty clearing stations, convalescent homes and advanced and base depôts of medical stores can be brought into being at a moment's notice.

Also involved is the question of supply of medical, surgical and hospital equipment, in addition to the equipment common to all arms of the service, *viz.*, camp equipment.

Prior to the war the Australian Army Medical Services consisted of:

(1) Department of Director-General of Medical Services at Head-Quarters.
(2) Permanent Services.
(3) Citizen Forces.
(4) Medical Officers of Training Areas.
(5) Medical Officers on Unattached List.
(6) Reserve.
(7) Nursing Services.

No change has been made in the above constitution.

In the following paragraphs each of the foregoing sections of the Australian Army Medical Services is dealt with separately and post-war change is indicated:

(1) Department of Director-General of Medical Services at Head-Quarters.

In August, 1914, this department consisted of:
One Medical Officer.
One Quartermaster.
One Military Staff Clerk.

Under reorganization the following staff was provided for:

One Permanent Medical Officer (Director-General of Medical Services), £1,500 *per annum*.
One Quartermaster (Permanent).
One Military Staff Clerk (Permanent).
One Shorthand Writer and Typiste.

Citizen Forces:

One Assistant Director of Medical Services: Pay of rank not exceeding thirty days *per annum*.
One Director of Hygiene: Pay of rank not exceeding sixteen days *per annum*.
One Staff Officer, Dental Services: Pay of rank not exceeding sixteen days *per annum*.
One Staff Officer, Pharmaceutical Services: Pay of rank not exceeding sixteen days *per annum*.
One Matron-in-Chief: Pay of grade not exceeding sixteen days *per annum*.

In view of the need for economy, the Assistant Director of Medical Services and Director of Hygiene only were appointed. The expenditure, however, connected with these part-time appointments would have been very small, their services only being required for advice in connexion with the section of the Army Medical Services which they specially represented.

(2) Permanent Services.

The establishment of the Permanent Medical Services consisted of three quartermasters, one warrant officer, six sergeants, five corporals, thirteen privates and one storeman.

Owing to the number of hospitals under the control of the Department of Repatriation being utilized for admission and treatment of members of the Australian Military Forces entitled to such admission and treatment and for accountancy and storage of medical and surgical equipment being transferred to the control of the Ordnance Department, a considerable saving has been effected in this establishment.

The permanent quartermasters are attached to the staff of Deputy Directors of Medical Services in the three largest Military Districts, a Warrant Officer Dispenser being employed in the two larger Districts, *viz.*, Second and Third. The following is the present strength: Two sergeants, one corporal, thirteen privates. The three quartermasters and two warrant officers have been transferred to the Australian Instructional Corps and allotted for duty with the Australian Army Medical Corps.

(3) Citizen Forces.

The Citizen Forces in 1914 consisted mainly of universal trainees, except medical officers (since the war many junior trainee medical officers being appointed) and were organized as follows:

(*a*) District Staffs.
(*b*) Regimental Medical Establishments.
(*c*) Light Horse Field Ambulance.
(*d*) Field Ambulance.
(*e*) Australian Army Medical Corps Companies.

(a) District Staffs.

All District Staffs consisted of medical officers who had the right of private practice. In each District there was a District Principal Medical Officer, who was granted a consolidated salary for the duties performed, and a Command Sanitary Officer with Citizen Force rates of pay. In the two larger States (Second and Third Military Districts) an

Adjutant with the rank of Captain was also provided.

There were also medical officers appointed in charge of Permanent Troops in each District and Sub-District where Permanent Troops were stationed. In all Military Districts excepting the Second the Principal Medical Officer also carried out the duties of Medical Officer in Charge of Permanent Troops at the District Head-Quarters, a separate appointment being made at District Head-Quarters, Second Military District, at £400 *per annum*.

Under reorganization the term "District Principal Medical Officer" was done away with and a Deputy Director of Medical Services as representative of the Director-General of Medical Services appointed in each District.

These officers are still employed on a part-time basis and receive remuneration at the rate of:

First Military District..	£300 *per annum*
Second Military District	£500 *per annum*
Third Military District	£400 *per annum*
Fourth Military District	£200 *per annum*
Fifth Military District..	£300 *per annum*
Sixth Military District..	£200 *per annum*

Their duties are now as follows:

(*a*) General organization and administration of the Army Medical Services of his District, including the Australian Army Nursing Service.

(*b*) Correspondence, reports, returns and statistics as may be required for the administration of the department.

(*c*) Confidential reports on officers of the Australian Army Medical Corps and members of the Australian Army Nursing Service as required.

(*d*) Medical duties connected with the Permanent Services at District Base Head-Quarters, including the medical examination of recruits and, when necessary, of any officer or soldier duly enlisted.

(*e*) Inspection of soldiers in arrest or undergoing detention and such medical attendance on cadets in detention as may be required at District Bases.

(*f*) Training, efficiency and general supervision of pay and clothing of the Australian Army Medical Corps Permanent Services.

The officer holding such appointment:

(*i.*) Communicates direct with the Director-General of Medical Services on all matters of technical detail in connexion with the Australian Army Medical Service and Australian Army Nursing Service.

(*ii.*) Acts as President of Medical Boards on members of the Permanent Services.

(*iii.*) Advises the Senior Ordnance Officer in regard to the care and storage of all medical and surgical field equipment and arrange for selection of suitable members of the Australian Army Medical Corps to be attached to the Army Ordnance Department for training in duties appertaining to the care, storage and accountancy of equipment required for the Army Medical Services on mobilization.

(*iv.*) Insures that all medical and surgical equipment which may be on charge to fixed defences is complete.

(*v.*) Submits to Army Head-Quarters recommendations:

For publication in *Commonwealth of Australia Gazette*:

(*a*) First appointments of officers.
(*b*) Appointments to staffs or to command of Ambulances.
(*c*) Confirmation of provisional appointments.
(*d*) Promotions.
(*e*) Transfer from one Military District to another.
(*f*) Transfers to and from Unattached List or Reserve of Officers.
(*g*) Retirements, removals and resignations.
(*h*) Miscellaneous, as affecting the above.

For publication in Military Orders:

(*j*) Appointments, resignations or retirements of Area Medical Officers.

(*vi.*) Allots officers to Divisions or other formations.

The term "Command Sanitary Officer" was altered to "Assistant Director of Hygiene," pay of rank not exceeding sixteen days *per annum*.

All appointments as Medical Officer in charge of Permanent Troops at District Head-Quarters have been abolished.

In the following Sub-Districts, however, such an appointment is maintained, that is, in Districts where a number of permanent men are stationed:

First Military District:
- Thursday Island: By an officer of the Commonwealth Health Department.
- Townsville: Lodge rates.
- Lytton: Lodge rates.
- Enoggera: Lodge rates.

Second Military District:
- Newcastle: Lodge rates.
- Middle Head and Chowder Bay: Lodge rates.
- South Head: Lodge rates.
- Liverpool: Lodge rates.

Third Military District:
- Port Phillip Heads: Medical officer receiving consolidated salary at rate of £300 *per annum*.
- Maribyrnong: Medical officer receiving consolidated salary at rate of £150 *per annum*.

Fourth Military District:
- Fort Largs: £1 8s. per head *per annum* for medical attention and medicines.
- Glenelg: £1 per head *per annum* for medical attendance, medicines being supplied by an allowance of 10s. *per annum* for single man, 15s. *per annum* for married man and wife, £1 *per annum* for married man, wife and children.

Fifth Military District:
- Fremantle: Lodge rates.
- Albany: Lodge rates.

The position of Adjutant in the Second and Third Military Districts was also eliminated.

The District Staffs are attached to the staff of the Base Commandant and form part of the fixed machinery or, in other terms, medical staffs which would be permanently employed in their respective positions in case of an outbreak of war.

The following appointments were also provided for District Staffs. but in view of the need for economy such were not given effect to:

(*a*) Senior Dental Officer: Pay of rank not exceeding sixteen days *per annum.*

(*b*) Senior Pharmaceutical Officer: Pay of rank not exceeding sixteen days *per annum.*

(*c*) Principal Matron: Pay of grade not exceeding sixteen days *per annum.*

Under reorganization a Divisional Staff, Medical Services, was created, whereby an Assistant Director of Medical Services and Deputy Assistant Director of Medical Services were appointed to Head-Quarters of each Division. These Divisions were organized as follows:

First Cavalry Division: Queensland and New South Wales (Head-Quarters, Sydney).

Second Cavalry Division: Victoria and South Australia (Head-Quarters, Melbourne).

First Division: Queensland and New South Wales (Head-Quarters, Sydney).

Second Division: New South Wales (Head-Quarters, Sydney).

Third Division: Victoria (Head-Quarters, Melbourne).

Fourth Division: Victoria and South Australia (Head-Quarters, Melbourne).

Fifth Division: The Fifth Division, when formed, will be organized from (*a*) Eleventh (Mixed) Brigade (Queensland), (*b*) Twelfth (Mixed) Brigade (Tasmania), (*c*) Thirteenth (Mixed) Brigade (Western Australia).

(b) Regimental Medical Establishments.

The Regimental Medical Establishments consist of medical details provided for in the establishment of the various Light Horse, Artillery, Engineer and Infantry Units, the rank and file of these medical details being attached to the Australian Army Medical Corps Companies for administration and training [see sub-paragraph (*e*)].

Regimental Establishment.—The present peace establishment of medical officers is as follows:

Military District.	Light Horse.	Field Artillery.	Australian Engineers.	Infantry.	Fixed Defences.	Total.
First ..	4	2	2	8	3	19
Second ..	7	6	5	21	8	47
Third ..	6	6	5	21	4	42
Fourth ..	4	1	1	4	1	11
Fifth ..	1	1	1	4	3	10
Sixth ..	1	1	1	4	1	8
Total ..	23	17	15	62	20	137

(c) Light Horse Field Ambulances.

The peace establishment of Light Horse Field Ambulances was four officers and fifty-nine other ranks, each unit being capable of sub-division into (*a*) and (*b*) sections and each (*a*) and (*b*) section sub-divided into Bearer Sub-Division, Tent Sub-Division and Transport Sub-Division. Under reorganization the term Light Horse Field Ambulance was altered to "Cavalry Field Ambulance," with an establishment of five officers, eighty-two other ranks, composing Head-Quarters, one Company and Transport details.

The number of Cavalry Field Ambulances provided for under present peace organization is as follows:

Military District.	Number	Formation to which Allotted.
First	1	First Cavalry Division, temporarily attached to Eleventh (Mixed) Brigade
Second ..	2	First Cavalry Division
Third	2	Second Cavalry Division
Fourth ..	1	Second Cavalry Division

(d) Field Ambulance.

The establishment consisted of six officers and ninety-one other ranks, sub-divided into (*a*), (*b*) and (*c*) sections, with a Bearer, Tent and Transport Sub-Division in each section. Under reorganization a change was made to provide for Head-Quarters and two Companies (*a*) and (*b*) with the necessary transport details; establishment, seven officers and one hundred and twenty-five other ranks.

The number provided for under peace organization is as under:

Military District.	Number	Formation to which Allotted.
First	1	Eleventh Mixed Brigade
	1	First Division, attached temporarily to Eleventh Mixed Brigade
Second ..	2	First Division
	1	Non-Divisional, attached to First Division
	3	Second Division
Third	3	Third Division
	2	Fourth Division
Fourth ..	1	Fourth Division
	1	Non-Divisional, attached to Fourth Division
Fifth	1	Thirteenth Mixed Brigade
Sixth	1	Twelfth Mixed Brigade
Total ..	17	Field Ambulances

(e) Australian Army Medical Corps Companies.

These Companies were organized for the purpose of training sanitary sections and the rank and file of regimental medical establishments, including stretcher-bearers for the various forts. These Companies, under reorganization, have been done away with and Cavalry and Divisional Sanitary Sections provided for in their place.

The rank and file of regimental medical establishment allotted to Australian Army Medical Corps

Companies for training under old organization are now trained by the Regimental Medical Officers attached to the regiment or corps to which they belong.

Sanitary Sections, consisting of one officer and thirty-one other ranks, are allotted as follows:

Military District.	Number	Formation to which Allotted.
First	1	Eleventh Mixed Brigade
Second ..	1	First Cavalry Division
	1	First Division
	1	Second Division
Third	1	Second Cavalry Division
	1	Third Division
Fourth ..	1	Fourth Division
Fifth	1	Non-Divisional, attached to Thirteenth Mixed Brigade
Sixth	1	Non-Divisional, attached to Twelfth Mixed Brigade
Total ..	9	Two Cavalry and Seven Divisional Sanitary Sections

(4) Medical Officers of Training Areas.

The system of appointment of Area Medical Officers was brought into force with Universal Military Training. A sum of £60 *per annum* was allowed for each area and was paid to the Area Medical Officer for the duties specified.

Officers of Australian Army Medical Corps Citizen Forces, Unattached List, Reserve, Retired List and civilian medical practitioners were eligible for appointment as Area Medical Officer.

Under reorganization the establishment was greatly reduced and the size of the Areas increased and, in view of the increased duties involved, the sum of £60 *per annum* was increased to £85 without increasing the total expenditure for this service.

(5) Medical Officers on Unattached List.

Medical officers, to be eligible for appointment to the Unattached List, through position of residence or for any other reason unable to carry on active military duty, must have had at least five years' service on the Active List.

(6) Reserve.

A special Reserve of Officers for the Australian Army Medical Corps was created on November 21, 1903, for medical officers who had previously held commissions in the Army Medical Services in the several States and for duly qualified and registered members of the medical profession who were willing to become additional medical officers for service when required in case of a national emergency; in March, 1908, this service was reconstituted to provide a medical and surgical staff, both consultant and executive, for the treatment in time of war of sick and wounded of the Australian Military Forces.

In January, 1909, provision was made for Pharmaceutical Services to be added to the Reserve and in January, 1916, Dental Services were added. The value of this Reserve was greatly emphasized shortly after the outbreak of the great war.

(7) Army Nursing Service.

The Australian Army Nursing Service was first organized as part of the Army Medical Services of the Commonwealth in 1903 on a voluntary basis, receiving £1 *per annum* for each efficient, the total establishment in 1914 being six Lady Superintendents, six Matrons and ninety-six Nursing Sisters. On the outbreak of war this establishment became absorbed in the greater organization, when this service was increased to 2,139 nurses for Australian Imperial Force overseas, 423 for service in Australia. In addition, 124 were sent for service with the Queen Alexandra Imperial Military Nursing Service at the request of the Imperial authorities.

One hundred and sixty-nine nurses were also appointed to the Australian Imperial Force, but did not leave Australia owing to the Armistice. Apart from this number, other nurses joined Imperial organizations, some by paying their own fares overseas and others who were in England in August, 1914.

Proposals for the organization of this service post-war have not yet been completed.

(8) Military Education of Medical Students.

Towards the end of the great war a scheme was approved for military training of junior medical students during their period of training for the medical profession, with the co-operation of the Universities of the Commonwealth having Medical Schools. The course consisted of sixteen lectures in military medicine, surgery, pathology, bacteriology and hygiene, which were to be delivered to medical students by specially selected officers of the Australian Army Medical Services, officers of high professional standing who had considerable experience in the great war.

The attendance at lectures by medical students counted as part of their universal military training, attendance at one lecture being equivalent to one parade.

This scheme was being revised with a view to including in the medical curriculum during the fourth, fifth and sixth years a special course of training in military hygiene, surgery, medicine and administration, in place of the present training, when it had to be postponed pending determination of the future organization under reduction.

(9) Regulations Governing Appointments, Promotion and Pay of Medical Practitioners in the Australian Army Medical Corps.

(a) Appointments, Promotions, etc..

The regulations governing appointments, promotions, etc., of officers of the Australian Army Medical Corps are as follow:

77A. (*i.*) Persons registered as medical practitioners may be appointed officers of the Australian Army Medical Corps, Militia.

(*ii.*) First appointment to commissioned rank in the Australian Army Medical Corps, Militia, of persons registered as medical practitioners shall, in the case of persons liable to be trained under Part XII. of the Act, be to the rank of lieutenant, provisionally, and in the case of persons not so liable, to the rank of captain, provisionally.

(*iii.*) Officers of the Australian Army Medical Corps, Militia, liable to be trained under Part XII. of the Act may, on completion of their training under paragraph (*d*)

of Section 125 of the Act, be promoted to the rank of captain, provisionally.

77B. Persons registered as dentists and persons registered as pharmaceutical chemists who are not liable to be trained under Part XII. of the Act may be appointed officers of the Australian Army Medical Corps, Militia, and may on appointment be granted the rank of lieutenant, provisionally.

77C. The syllabus and scope of the examinations for appointment and promotion of officers of the Australian Army Medical Corps, Militia, shall be as approved by the Military Board.

77D. Officers of the Australian Army Medical Corps, Militia, may be allotted for duty with units and staffs of the Military Forces.

Further conditions regarding appointment are as follow:

(*i.*) Vacancy on the authorized establishment.
(*ii.*) Medical fitness.
(*iii.*) Recommended by the Assistant Director of Medical Services of the Division and Deputy Director of Medical Services of the District.

Officers appointed are required to pass a qualifying examination in military subjects for the confirmation of their provisional appointment within eighteen months, further examination being necessary before promotion to each step in rank up to that of Lieutenant-Colonel. Officers, however, who held higher rank on active service, may be promoted to the highest substantive rank held on active service without examination, subject to (*a*) provision for rank on authorized establishment, (*b*) question of seniority of other officers being considered.

(b) Pay.

Pay granted to officers of the Australian Army Medical Corps, Citizen Forces, is as follows:

Lieutenants (trainees): 15s. *per diem*; maximum, £12 *per annum.*
Captains: £1 2s. 6d. *per diem*; maximum, £18 *per annum.*
Majors: £1 10s. *per diem*; maximum, £24 *per annum.*
Lieutenant-Colonels: £1 17s. 6d. *per diem*; maximum, £30 *per annum.*
Assistant Director of Medical Services: £2 5s. *per diem*; maximum, £67 10s. *per annum.*
Deputy Assistant Director of Medical Services: £1 10s. *per diem*; maximum, £45 *per annum.*

To earn this amount or otherwise to be classed as efficient it was necessary to do eight days' camp of continuous training, eight days' home training by half- and whole-day parades. Assistant Director of Medical Services and Deputy Assistant Director of Medical Services, thirty days *per annum.* Assistant Director of Hygiene, Senior Dental Officer and Senior Pharmaceutical Officer, pay of rank, sixteen days *per annum.*

In addition to the above rates of pay, medical officers in civil practice may be paid an allowance of £1 for each day of authorized attendance at annual camp, not exceeding eight days *per annum.* This allowance is intended to meet part of the cost of providing a *locum tenens* and is to be additional to the ordinary pay and allowance of rank. Before payment of this allowance is made, a certificate should be furnished in all cases by the medical officer to the effect that a *locum tenens* was employed by him during his absence at camp.

(10) Training.

"Royal Army Medical Corps Training" is the general text-book for the training of the personnel of the Australian Army Medical Corps. In addition, training is given in squad drill (infantry training), semaphore signalling, training and care of horses and harness.

Commanding Officers of Medical Units are assisted by Warrant Officers of the Australian Instructional Corps. The main objects which were borne in mind in connexion with the training of the Army Medical Services, were as follows:

(*i.*) That every officer, non-commissioned officer and man should reach a higher standard of knowledge of his military duties and acquire, as far as circumstances admit, a more complete and thorough acquaintance with the varied nature of his work in the field (it is not sufficient for Army Medical personnel required for military service under modern conditions to be merely instructed in the elemental part of their drill and general duties).

(*ii.*) That instructions should be given to the men by the unit officers and that in this manner those who lead, should be those who instruct.

(*iii.*) That every encouragement should be given to the men by the officers to acquire intelligent knowledge of their duties as soldiers and to promote that individuality and self-reliance which follows upon knowledge and interest in all that pertains to their fighting value under conditions of modern warfare.

THE QUARANTINE SERVICE.

COMPILED BY SPECIAL REQUEST BY THE DIRECTOR-GENERAL OF HEALTH FOR THE COMMONWEALTH.

THERE is probably no phase of medical practice which offers to certain types of mind so great a fascination and so absorbing an interest as quarantine work; even in his daily round of duties the Quarantine Officer finds it essential to extend his mental vision over the whole geographical world.

It would be quite an ordinary event in a busy port for vessels to arrive from South America, from Russia and from Japan, all in the course of one short morning. Allied to these vessels, there are people from these countries to be met, goods to be examined and customs and matters of general human interest to be discussed. Apart from this atmosphere of general education, which forcibly transports a man in imagination from his own home city to every part of the world, there is the immediate technical purpose of his visit to the ship—the detection of declared or undeclared disease on the vessel.

While on the vessel from South America the Quarantine Officer's mind must be concerned with yellow fever, on the vessel from Russia with cholera and on the vessel from Japan with plague. The officer to discharge satisfactorily the functions of his office must not only visualize the existence of

these diseases at the ports from which the vessel had sailed, but must know accurately the conditions with regard to the epidemic spread of those diseases at those ports. It is not sufficient for this purpose that he should rely upon the meagre and often inaccurate information supplied by the Bills of Health carried on the ship, but he must have recourse also to all that information which he acquires from other sources and, in particular, to periodic information supplied by the intelligence service of the central office of the Commonwealth Department of Health. He must have knowledge of the varying risks presented by conditions at various ports, so that he may utilize that knowledge in accurately assessing the importance to be attached to an ill-defined history of illness during the voyage. He must know, for example, the source from which the ships draws its water supply at Yokohama and at Singapore, in order that he may estimate the relative possibilities of cholera being conveyed from such water supply at each of those ports. Is the water supply obtained at the wharf from city mains under efficient official control or is it supplied by water boats, which are permitted to obtain their water supply from any source without any official supervision? Or, on the other hand, his mind must be searching the question of the value to be attached to the reports that Guayaquil, which for centuries has been the hot-bed of yellow fever, has now by vigorous activities under expert direction been permanently freed from this disease.

It is not necessary to say more in order to indicate the continual interest which attaches to a Quarantine Officer's work, which, if properly done, entails the constant acquisition of fresh knowledge, the constant sorting out and evaluation of evidence from various sources and constant practice in the making of immediate and definite decisions upon grounds which can be subsequently put forward in support of any decision. The daily round of the Quarantine Officer's duties involves a constant succession of such decisions, each of which has its own importance.

Delay is, except in the gravest circumstances, impossible. A vessel containing 1,200 passengers, with a time schedule arranged months in advance, cannot lightly be delayed for twenty-four hours for the confirmation of a diagnosis. The Quarantine Officer finds himself quite frequently in the position of having to diagnose between cases of small-pox and chicken-pox, between an entero-colitis and cholera, between septicæmic plague and a large range of septicæmias with which it may be confounded; of having to prescribe the appropriate action in the presence of an active outbreak of diphtheria amongst a large number of third-class passengers or of a rapidly spreading outbreak of cerebro-spinal meningitis amongst Asiatic coolies on an over-crowded vessel. All of this experience within the range of his professional duties is of the very greatest educational value.

Quarantine work, however justifiably it may have been despised in the past, is under modern conditions work which calls for the exercise of the best elements of human character and affords opportunities for a display of administrative efficiency under difficult conditions, where the critical test of success runs with the work and where failure immediately reveals itself.

Not only is this experience provided on the professional side, but on the more human side this work under modern conditions is not work for the weakling. Every person on board the vessel is impatient and resentful of the work of the Quarantine Officer. The impulse of the master of the ship is to get on with the work of his vessel and to ignore any involved risks to the community; the impulse of the passenger, whose illness is not entirely disabling, is towards the concealment of that illness so that his movements may not be interrupted. With the ship's crew, from the master downwards, and the passengers, from those in the most exalted station to the most humble deck passenger, at the best passively resistant and at the worst wilfully deceitful, satirical, abusive or offensive, there is no place in the Quarantine Service for a Quarantine Officer who has not more than the ordinary endowment of patience and tact and of knowledge of human nature.

After the vessel's arrival and after the passengers have been landed, there still remains the control of the ship while in port. This involves the processes of disinfection, of "deratization," by fumigation or other means, of control of ship's refuse disposal, of supervision of proper water supplies and a large range of other details, all of which require extensive knowledge of chemistry, of physics and above all a knowledge of men and of affairs.

No branch of medical practice offers so wide a range of interest, so fascinating a daily round of duties or so great an opportunity for meeting unexpected and adverse conditions or for detecting and controlling imminent risks to the community in general.

While it is universally recognized that there are elements of error in any quarantine system, which must always operate and can never be entirely eliminated, yet it speaks volumes for the success of quarantine administration in Australia that in the past fifteen years small-pox has become epidemic on two occasions, in one of which the infection was limited to seven cases, and plague on one occasion only, notwithstanding that both these diseases have repeatedly been brought to Australia on vessels from overseas. Yellow fever, cholera and typhus have not been successful in evading the quarantine barrier.

The conditions of work are not unduly arduous. Certainly the Quarantine Officer is required to board vessels at daylight, but this does not happen as frequently as the occurrence of midwifery cases in private practice and provision is made to obviate the working of unduly long hours by any Quarantine Officer.

Every encouragement is given by the Department to Quarantine Officers to improve their knowledge and their value to the community. Facilities are given, whenever practicable, for officers to obtain their diploma of public health and three officers of the Department have so far taken this diploma while still in the Department.

Under an award given by the Public Service Arbitrator, provision was made, certainly as a recommendation and not in mandatory form, that Quarantine Officers might be given facilities—at the Department's expense—for study abroad. This provision has been applied already, officers of the Department being sent abroad to gain knowledge of conditions in other countries, and this policy will be continued.

The range of salary has been fixed by an award of the Public Service Arbitrator, which is as follows:

Quarantine Officers: £606 to £702 at the end of first year, thence to £798 by two £48 increments at the discretion of the Director-General of Health, but in any case at an interval of not more than two years.

Chief Quarantine Officers: £900 to £1,100, at the discretion of the Director-General of Health.

At the end of twenty years' service the officer is under the Public Service Regulations entitled to six months' furlough on full pay.

It might be well to make it clear that this Department has not and will not have any vacancies for those who wish to take up quarantine work because "they do not like private practice," or those who think that a Government position means an assured income, short hours and easy work.

The Imperial Services.

THE DEFENCE FORCES.

There are two reasons why the members of the medical profession in Australia should follow the changes in the conditions obtaining in the Royal Naval Medical Service, the Royal Army Medical Corps and the Royal Air Force Medical Service. The first is the obligation on every member of our great Empire to contribute to the safety and prosperity of the British nation. The second is that every young practitioner should be aware of the advantages of each Imperial service, so that those who by temperament, training or taste are fitted for one or other service, may make their selection at an early stage in their career.

The conditions of entry to the Royal Naval Medical Service are similar to those described by the Director of Medical Services for the Royal Australian Navy. The candidates are required to pass an examination and to submit to a course of instruction. A second examination is prescribed and the successful candidate is then given a commission as Surgeon-Lieutenant. The pay starts at £1 4s. a day and increases by regular stages to £4 a day or £1,460 a year after thirty years' service. Promotion to the rank of Surgeon-Lieutenant-Commander follows after six years after the necessary examination has been passed. Six years later the officer is eligible for promotion to the rank of Surgeon-Commander and after a further nine years to that of Surgeon-Captain. The selection of officers for the rank of Surgeon-Captain and Surgeon-Rear-Admiral is based on professional and administrative ability. The pay of Surgeon-Rear-Admirals is five guineas a day. The ages for retirement vary according to the rank. Surgeon-Lieutenant-Commanders must retire at the age of forty-five years and receive retired pay at the rate of £450 *per annum*. Surgeon-Commanders must retire at the age of fifty years and receive retired pay at the rate of £600 *per annum*. Surgeon-Captains must retire at the age of fifty-five years and receive retired pay up to £900 *per annum*, according to the length of service. Surgeon-Rear-Admirals must retire at the age of sixty years and receive retired pay varying between £790 and £1,010 *per annum*. Provision has been made for short periods of service for junior officers. The usual term is three years. Transfer to the permanent service can be effected after six months' service.

It is probable that a considerable reduction of personnel will result from the carrying into effect of the proposals of the Washington Conference. The restriction of the number of capital ships will of necessity reduce the number of officers and ratings and it is anticipated of the medical establishments. Moreover, the necessity for national economy must reach every Governmental department. The recommendations of the Committee on National Expenditure under the chairmanship of Sir Eric Geddes contains the sane proposal that the medical services attached to the three arms of the Defence Forces should be unified, that naval and military hospitals should be open indiscriminately for sailors, soldiers and Air Force men and should be utilized for disabled and discharged service men and that naval hospital ships should be available for army purposes. Similar proposals have been put forward by the Federal Committee of the British Medical Association in Australia on the ground of economy and of the probability of increased efficiency. Should the recommendations of the Geddes Committee be adopted, the number of commissions available in the Defence Medical Services would be smaller than that of the existing three medical branches. The opportunities offered to the medical officers in clinical work, in administrative matters and for research would be greatly enhanced and there would be keener competition for entrance into the service.

Entry into the Royal Army Medical Corps is governed by competitive examination. Since the war these examinations have been discontinued, but it is anticipated that they will soon be re-established. The rates of pay have been considerably increased as a result of the war and the need for the maintenance of a relatively large standing army since the conclusion of peace. Unmarried officers on obtaining a commission as Lieutenants are paid £550 *per annum* and married men £617 *per annum*. After twenty-five years' service, provided that promotion has followed its normal course, unmarried officers holding the rank of Lieutenant-Colonel are paid £1,221 and married officers £1,274 *per annum*. Colonels receive £1,433 or £1,502 and Major-Generals £2,130 or £2,212 *per annum*, according to whether they are unmarried or married. The retired pay and gratuity on voluntary retirement are liberal. It will be universally recognized that the Royal

Army Medical Corps of to-day is quite different to the Royal Army Medical Corps of 1914. One of the marvels of the war was the manner in which the almost incredible defects and shortcomings of the service were overcome. The Royal Army Medical Corps of the last phases of the war was a wonderful machine, efficient in every particular and organized on the soundest lines. Unless departmental action and political control interfere with the administration and undermine the spirit which exists to-day, the professional and military standards of this service will not be permitted to return to the pre-war level.

Service in the Royal Air Force Medical Service is so novel that peace-time organization has still to be tested and standardized. In Australia this service is extremely limited. Unless the medical services are unified, the future of the Air Force Medical Service in Australia is in danger of succumbing to the developmental defects of an infantile organization. In the mother country the service is sturdy, lusty and well-founded. Its survival is not in doubt, although it may suffer set-backs if the Treasury becomes too parsimonious. Applicants for admission must be under twenty-eight years of age, must be nominated by the Dean of a recognized Medical Faculty or medical school and must be of European descent and the sons of subjects of the British Empire. They must undertake to fly when called upon to do so and to qualify in aviation tests. No examination has to be passed, but the candidate has to be interviewed by the Director of Medical Services before he is accepted. The ranks are as follows: Flying Officer, Flight Lieutenant, Squadron Leader, Wing Commander and Group Officer. The pay is approximately the same as that of the Royal Naval Medical Service. Group Captains have to retire on attaining the age of fifty-five years.

INDIAN MEDICAL SERVICE.

FORMERLY the Indian Medical Service attracted medical practitioners of proven ability in scientific work, notwithstanding the unsatisfactory conditions of service. Everyone knows that the Indian Medical Service embraced in the olden days men whose work has contributed in no small measure to knowledge. It is true that the whole service was not uniform and that much indifferent organization has manifested itself from time to time. Last year the *Indian Reform Act* came into force and provided for a larger responsibility and greater participation of native Indians in the government of the country and in the filling of administrative and other positions. The effect of this measure will be to increase the number of native medical practitioners serving in the Indian Medical Service. For the time being the former competitive examination is held in abeyance and admission is by nomination. The nomination of European candidates is made through the India Office, while the native authorities are invited to nominate one candidate to each two nominated in London. At first the officer is required to devote his time execlusively to military service. He is usually stationed in an Indian military hospital. After a time, he may apply to be transferred to the civil branch of the service. The civil work comprises duty in civil hospitals, duty as public health administrators, teaching in medical colleges and private practice. The scope is wide, the opportunities for a man of scientific attainments are unlimited and the interest attaching to the different phases of the work absorbing. The rate of pay has been improved recently as a result of representations made by the British Medical Association. On entry the Lieutenant receives 650 rupees a month, which is equivalent to about £520 a year. After twenty years' service he receives as Lieutenant-Colonel 1,850 rupees a month or approximately £1,480 a year. In addition, he is given so-called charge allowances. The pension scale is satisfactory. Leave and study leave are provided.

COLONIAL MEDICAL SERVICES.

THE COLONIAL OFFICE IN LONDON has for many years mothered a sort of heterogeneous service in the outposts of Empire. This service is the product of chance and has grown under many conflicting interests without any restraining influences at headquarters. Indeed, it would seem that the present unsatisfactory conditions have been fostered and perpetuated by the departmental ineptitude and lack of real interest. The British Medical Association has taken up the matter and has endeavoured to institute reforms, so that medical practitioners who feel the call of tropical service and research in tropical problems, may find congenial and favourable fields for their talents. Medical practitioners in the past have applied for an appointment in a special colony or group or have submitted a general application for one of the many positions in the gift of the Secretary of State for the Colonies. It appears that the Colonial Office is divided into departments, each of which is concerned with a colony or group of colonies. In these circumstances no coordination of the service is possible and consequently it is useless to regard the Colonial Medical Services as one service.

The best field at the present time is West Africa and the service, although not regarded as good, is probably the only one which has an organization based on sound principles. The conditions obtaining in regard to the West African Medical Service have been modified within recent times. The Dominions Committee of the British Medical Association, in their communications with the Secretary of State for the Colonies, has complained that the information concerning the terms and conditions of appointment to this and to the other services were often not available and has extracted from the Minister an undertaking that non-confidential documents dealing with these services would be forwarded to it immediately after issue. The appointments in East Africa are less satisfactory than those in the West. Similarly, objections have been raised in regard to the Malayan service.

The Medical Journal of Australia

SATURDAY, MAY 6, 1922.

The Defence Medical Services.

The scheme on which the Education Numbers of The Medical Journal of Australia are founded, differs from that in vogue elsewhere in that it has been devised to avoid a tedious repetition year after year of almost the same facts. Different aspects of medical education are selected each year for a period of five years for detailed treatment. The tuition given to the student at the medical school is only a part of medical education. Perhaps the most important phase is that which deals with the safety of the whole nation. At the medical school the student is taught rudiments and the scientific basis of medical knowledge. Later he learns in the school of experience, often profiting at the expensive price of serious mistakes, always groping in the dark for guidance to help him to find the truth. His skill and ability increase with practice and his knowledge grows with experience. At best, however, the wisest physician can boast only of fragmentary knowledge and of having applied this knowledge for the amelioration of the sufferings of but a few individuals. The medical practitioner who devotes his energies to work aiming at the prevention of disease, has a wider field and his successes reach an unlimited number of individuals. The medical practitioner who educates himself in naval and military medicine, may be partly instrumental in preserving the safety of a nation and in maintaining national supremacy. It is scarcely necessary to point out that efficiency can only be attained by timely preparedness and that an inefficient service is not worth keeping. The medical officer of the Navy and of the Army needs special training. He has to undergo a special form of education, different in every particular from that of the ordinary civilian doctor's training. It is a short-sighted economy to rely on emergency organization and quick training for so important a function as that required of the three medical defence services. In order that the type of training and the conditions of service may be better understood the Director of Naval Medical Services and the Director-General of Army Medical Services have kindly contributed valuable articles for this issue. Unfortunately, the lessons contained in these two articles may have to be modified when the policy of retrenchment is announced. It is an open secret that very considerable reductions are to be introduced into the three arms of the Defence Forces. It lies outside the sphere of a medical journal to discuss questions of general politics and consequently no reference can be made in this place concerning the wisdom or folly of reductions of armaments and of the standing forces. On the other hand, this journal is eminently concerned with the policy in regard to the medical branches of the three services.

Experience has recently been bought at an almost prohibitive price. The medical profession in Australia was practically unprepared for the gigantic tasks required of it in 1914 and the following years. The legacy of the South African War was not a rich one and in the interval only a few enthusiasts continued to pay any heed to the necessity for real education in medical matters connected with warfare. The inefficiency of the medical profession as a whole to perform military medical duties under conditions of a world war was to some extent compensated by the superb courage and keen determination of a large number of individuals. The failure in the examination of recruits was a costly one; the lack of modern laboratory facilities during the early stages of the Gallipoli campaign was probably one of the reasons for the excessive proportion of ineffectives. Time, experience, bitter lessons and the exercise of inventive genius eventually raised the standard of our services and placed within our reach the material with which a model service could be constructed and maintained. To-day this is possible and even easily possible. In a few years the leaders, whose experience and ability might have been employed for this purpose, will have passed hence and the opportunity will have been missed. The temper of men to-day favours plans for the perpetuation of peace. With

the world paralysed by stupendous war debts and groaning under the burden of industrial upheaval and unrest, sane men could not well regard another cataclysm with equanimity. But memories are short and history tends to repeat itself. After the Austro-Prussian war of 1866 a very powereful book, entitled *"Die Waffen Nieder!"* ("Down with Arms!"), created an enormous sensation in Europe. War was uncivilized; the possibility of near relatives fighting with opposing armies had to be prevented once and for all time; sociologists and hygienists strained every nerve to eliminate disease, to lessen suffering and to postpone death; war rendered all these efforts nugatory. And so on. After the Franco-Prussian war popular sentiment was very similar. Only four years had elapsed, but the spirit of Mars had again prevailed. Who can forget the tender pathos voiced in the song of that time: *"Jeanette et Jeanot."* "Let those who make the quarrels, be the only ones who fight!" In a few years the determination of the eminent men labouring in favour of the re-establishment of economical stability and peaceful international intercourse at Genoa, the ideals of the League of Nations, the efforts of the League of the Red Cross Societies with their wonderful programme replete with humanity, may pale before the tense struggle for economic supremacy and war may again loom on the world's horizon. Everybody now knows that war can never become an impossibility. Man is born to fight and, though he may be restrained by diplomacy and by arbitration, a complete revulsion of this ingrained quality cannot be effected.

As long as war remains a future possibility, the medical profession dare not sink again into a state of unpreparedness and inefficiency. The excuse of financial stringency is insufficient, for the extra cost of failure must prove immeasurably greater. The medical profession must clamour and keep on clamouring until the Federal authorities recognize that a policy of reduction and degeneration cannot be tolerated by men who have a high sense of national honour. Moreover, the medical services can be maintained at a relatively small cost by the creation of a special branch to provide the needs of the three arms of the Defence Forces.

THE BRITISH MEDICAL ASSOCIATION.

EVERY medical student worthy of the name loves his medical school. To him it is superior to all other schools and he regards it as a special privilege that he can contribute to its prestige and reputation. He developes a spirit of loyalty to his *alma mater* and he is prepared to defend it through all the chances and changes with a jealousy worthy of a lover. His code of honour is rigid and exacting and he brooks no insinuations of unworthiness or shortcomings on the part of his medical school. This healthy sense of superiority follows him through his professional life. Even in his old age he declares with pride that he is a graduate of this or that university.

When the student passes out of the medical school, he joins a larger organization, whose integrity and honour demand as much safeguarding as does that of the medical school. The medical profession exists, unlike the majority of other callings, for the benefit of mankind. Members of this profession possess knowledge and skill for the alleviation of suffering and for the preservation of health. It becomes a sacred duty of all practitioners to serve the public by applying the principles of prevention and cure, even if this involves a large sacrifice of comfort, of personal freedom and of the so-called pleasures of life. The calling is not a trade; the earning of money is a matter of secondary importance and should never be a dominating influence. The doctor has to work long hours. He may be deprived of sleep. He will have much unremunerated work, but he recognizes that a poor man's life is essentially as valuable as that of a millionaire or of a prince. Moreover, he is required to work unostentatiously, without recourse to advertisement. He stands in a peculiar relation to his patients, who trust him implicity. Intimate secrets are divulged without hesitation to the doctor; the safety of a life is entrusted to him without question; he is rarely asked what the cost of his services will be before the attendance is rendered. It will be recognized that the practitioner needs an intra-professional organization to guide him and to assist him in maintaining the honour and interests of the medical profession. Without such a society as the

British Medical Association there would be a grave danger that the profession might forget its ideals and deteriorate into a trade whose members had something to sell.

The British Medical Association was founded ninety years ago by Charles Hastings for the promotion of medical and the allied sciences and for the maintenance of the honour and interests of the medical profession. During this long period it has fulfilled its functions and has guarded the honour and interests of the profession in an unerring manner. It stands to-day as the guardian of medical ethics and as the representative of the medical profession. It behoves every medical graduate to join this organization as the first act of his professional life. He should not only become a member; he should learn something concerning its constitution, in order that he may understand its methods and be seized of its authority and limitations. Opportunity may arise early in a practitioner's career to participate in the local government of a Division.

The British Medical Association is a society incorporated under the *Companies Act* as a company conducted not for gain. Its Memorandum of Association and its Articles have been drafted with extreme care and after the fullest consideration of the functions it should perform. The government of the Association is vested in the Representative Body, which comprises representatives of each unit of the Association, called Divisions. The Council, formerly called the Central Council, is an executive body and is charged with the duty of carrying out the wishes of the Representative Body and of conducting the business of the Association in the intervals between Representative Meetings. In Great Britain certain Divisions are grouped together to form Branches. In Australia the Divisions are so large that it would be impossible to preserve their local characters and peculiar interests if they were grouped together. They are consequently called Branches, but each possesses the powers and rights of a Division as well as those of a Branch. There are six Branches in Australia, each corresponding in its area to that of a State, with the one exception that the Broken Hill district has been included in the area of the South Australian Branch. Each Branch is managed by a Council, whose powers and duties are defined in the Articles and By-Laws of the British Medical Association. The policy of the Branches is determined by the members.

Alterations of the Articles and By-Laws are to be presented to the Representative Meeting to be held in July, 1922, at Glasgow for the purpose of enabling the overseas Branches to retain all the powers and privileges of Branches although incorporated under the local *Companies Acts*. It is probable that these amendments will be sanctioned and in that event the Branches will be able to "promote medical and the allied sciences and maintain the honour and interests of the medical profession" by any or all of the means specifically provided in the Memorandum of Association of the British Medical Association. In this way the Branches will gain greater autonomy and will be able to serve the members collectively and individually more effectively than in the past.

The Federal Committee exists for the purpose of taking action collectively for all the Branches and of introducing uniformity of policy throughout the Commonwealth. The Federal Committee comprises two representatives of each Branch, selected on account of their knowledge of professional matters. Neither the Federal Committee nor the Councils of the Branches have any power to establish a policy in connexion with matters concerning the relations of the medical profession to the public and concerning the relations between members of the medical profession. The British Medical Association is a body with a truly democratic government. The Representatives attending the Representative Meeting are required to express the views of the majority of the members of the Divisions they represent and not their personal views. Similarly, the majority of members attending a Branch meeting determine all questions of policy. Young graduates should join the British Medical Association as early as possible and follow the activities of the Branch to which they are attached, in order that they may exercise their power of moulding the destinies of this great organization with wisdom and discretion. It must always be remembered that the ultimate object of membership of the British Medical Association is the furtherance of knowledge and the guarding of the integrity and dignity of the medical profession.

Medical Education in Australia.

Two years ago a full account was published in the Education Number of THE MEDICAL JOURNAL OF AUSTRALIA of the facilities provided at the three Medical Schools for the education of medical students. The methods adopted at each, as well as the curriculum, were described by the Deans of the Faculties of Medicine. In order to avoid tedious recapitulation and to liberate space for a fuller discussion of other branches of medical education, the following account is largely restricted to recent changes introduced into the schools and the curriculum. Readers are recommended to refer to the articles published in 1920 (March 27) for all other particulars. It will be noted that the curriculum has been modified in all three Medical Schools. The changes are rather of the nature of emendations of the old order of affairs. THE MEDICAL JOURNAL OF AUSTRALIA has persistently clamoured for a drastic revolution in the system of medical education and for a new curriculum built up in logical sequence on the requirements of medical science as it exists to-day. A report was published in the Education Number in 1920 of a special committee of experts convened by THE MEDICAL JOURNAL OF AUSTRALIA for the purpose of inquiring into the present methods and of suggeesting such alterations as might appear to be expedient and desirable. The report contained a draft curriculum, partly based on the recommendations of the Edinburgh Pathological Club. This draft curriculum has met with some unfavourable criticism, not so much in regard to the soundness of the principles on which it is based, but rather because it is held by some that the danger associated with wiping the slate clean and of starting the writing afresh, is considerable. The defects of the old system are known, it is argued; those of a totally new plan will not be known until after the plan has been introduced. Should the unknown defects and difficulties prove greater and more real than the defects and difficulties of the old system, it would be too late to turn back. This argument would apply equally to all reforms. Those who are afraid to take a step in the dark, would have themselves alone to blame if their conservatism were over-ridden and if they found themselves left reclining on the shelf together with dusty books, mouldly specimens and other relics of a past age. Patch work is at best a temporary expedient and it rarely satisfies anyone.

Notwithstanding these criticisms, the claim made last year that the medical education provided in the three schools of medicine at the Australian Universities compares favourably with that available at the older universities of the mother country, still holds good. There is no need for parents to send their sons or daughters to Europe to be trained for entrance to the medical profession.

THE MEDICAL SCHOOL OF THE UNIVERSITY OF SYDNEY.

THE UNIVERSITY OF SYDNEY offers four degrees in medicine. They are the Bachelor of Medicine (M.B.), the Bachelor of Surgery (B.S.), the Doctor of Medicine (M.D.) and the Master of Surgery (M.S.). Prior to August 8, 1921, the degree of Master of Surgery (M.Ch.) was granted to all students who had passed the examination for the degree of Bachelor of Medicine and had paid an additional fee of ten pounds. This degree has now been abolished in favour of the two degrees in surgery named above. The change was effected in response to a request emanating from the Australasian Medical Congress, Brisbane, 1920, based on a claim that there should be uniformity as far as degrees are concerned in the three Universities with schools of medicine.

The curriculum has been increased from five years to five years and two terms. In the first year the subjects of chemistry, physics, botany and zoology are taken. The subjects of the second year are anatomy, including embryology and histology, physiology, including bio-chemistry and general physiology, pharmacology and applied chemistry. These subjects are continued for six terms, thus embracing the third as well as the second year. The "second degree" examination is held in December instead of at the end of the Trinity term. The "third degree" examination is held in December also. Students who fail to pass at the end of the Michaelmas term, will be re-examined in March. It is thus possible for unsuccessful candidates to catch up their more fortunate colleagues by working through the long vacation.

In the fourth year the student is required to take pathology and bacteriology, medicine, surgery and clinical surgery and hospital practice, including tutorial medicine and tutorial surgery. The main subjects are pathology and bacteriology, while systematic lectures in medicine and in surgery have to be attended. The "fourth degree" examination is held in December, at the end of the Michaelmas term. The fifth year has also been re-arranged. The student must attend lectures on medicine and surgery, gynæcology, obstetrics, medical jurisprudence and preventive medicine. Therapeutics and *materia medica* and practical pharmacy are taught and a course of clinical medicine is taken. There is no examination at the end of this year. The two remaining terms of the course are devoted to diseases of children, diseases of the skin, of the eye, ear, nose and throat and psychiatry. The final examination is held in August, that is, five years and two terms after entrance, provided that the student has not failed to complete each year's work within the prescribed time.

Admission to the medical course is granted to matriculated students or to students who have passed the Leaving Certificate Examination of the Department of Public Instruction of New South Wales or to those who can produce evidence of having gained admission to another recognized university. The subjects required are English, Latin, mathematics and either French, German or Greek.

The total cost of the medical course at Sydney is about £300. The fees for the degrees of Doctor of Medicine and Master of Surgery are £20 each. These degrees are granted to medical practitioners of at least two years' standing. A thesis must be submitted and the candidate may be examined on the views expressed in his thesis.

Students may go into residence at one of the five affiliated colleges. The conditions of admission, fees and other particulars can be ascertained by application to the wardens of the respective colleges.

THE MEDICAL SCHOOL OF THE UNIVERSITY OF MELBOURNE.

PREPARED ON SPECIAL REQUEST BY THE DEAN OF THE FACULTY OF MEDICINE.

A BRIEF description of the medical curriculum was given in the Education Number issued on March 27, 1920 (pages 283-287). Since that time the whole course has been reconsidered and a new curriculum has been adopted and is gradually coming into actual operation. A condensed summary of the chief changes is all that can now be attempted.

The curriculum has been lengthened from five calendar years to five calendar years and two terms, so that a student who enters the first year in March and passes his examinations year by year, will graduate in September of the sixth year. The first year is still devoted to the fundamental sciences—chemistry, natural philosophy, zoology and botany. These subjects receive special treatment in increasing degree for medical students. The second and third years are wholly given to anatomy and physiology, with examination at the end of the second year and again at the end of the third year. Failure to pass at the end of the second year entails repetition of that year's work. Failure in the third year examination in the whole subjects of anatomy and physiology or either of them entails repetition of the work of the third year. In each of these years, however, a supplementary is provided, that of the second year in the March following, that of the third year in December, only a month after completion of the chief examination. Hence, students who complete the third year are ready to enter the clinical part of the curriculum early in the following year.

Hospital practice now begins and extends through two calendar years and two terms. As heretofore, each recog-

nized general hospital submits a syllabus of clinical instruction for approval by the Faculty of Medicine.

The third division of the course is very little altered, but lies wholly in the fourth year, including pathology, bacteriology, *materia medica* and pharmacy, therapeutics, public health and regional and applied anatomy. Examinations in these subjects are provided within the fourth year, each subject being treated as a single subject. Failure in any subject of this division does not affect passing in other subjects, nor hinder the progress of a student; but he must complete the whole division before entering the final examination.

The subjects of the fourth division are transferred to the fifth and sixth years. The number of lectures in systematic medicine and surgery has been reduced to "at least forty" in each subject. These lectureships have been put in commission, with a Board of Lecturers in each, presided over by a Chairman, who nominates his Board for approval by Faculty and Council, allocates their subjects as well as his own, acts as First Examiner and is charged to maintain relations with the Clinical Lecturers at the general hospitals so as to obtain the best totality of treatment of his subject.

In hospital work, attendance on children's diseases has been extended to three months, during which there will be no attendance at a general hospital. More time has been given for diseases of the throat, nose and ear. A short course of lectures on venereal disease is compulsory, as well as a course of clinical instruction. Otherwise, the main lines of the regulations concerning clinical work are not much altered.

The Final Pass Examination is in August of the sixth year and is conducted on the old lines, except that there will be a new clinical examination in diseases of children, the results of which will be taken into consideration by the Board of Examiners in Clinical Medicine.

The Final Honour Examination is not held till the end of the sixth year and is open to all who complete the Final Pass at the end of the second term of the sixth year.

In sum, one term has been added to the study of anatomy and physiology and one term has been added to the clinical period, largely for better instruction in diseases of children. A pass degree may be obtained in five years and two terms. A place in final honours is not gained till the end of the sixth year. Students who enter or remain in the first year in 1923, will do the new course in its fullness. Those who have completed one or more years of the course before 1923, will find the corresponding degrees of allowance in their favour.

The following are the chief changes in personnel:

SIR HENRY MAUDSLEY has retired from the lectureship in medicine and MR. F. D. BIRD from that of surgery. DR. L. S. LATHAM is now Chairman of the Board of Lecturers in Medicine and MR. BASIL KILVINGTON, M.S., F.R.C.S., Chairman of the Board in Surgery. DR. R. H. MORRISON has succeeded DR. HORNE as Lecturer on Obstetric and Gynæcology. MR. A. E. MORRIS lectures on venereal diseases and DR. KENNETH CROSS conducts an optional class in radiology. DR. J. T. TAIT has succeeded DR. J. I. CONNOR as Stewart Lecturer in Pathology. MR. E. W. CHENOWETH has succeeded MR. F. G. MIDDLETON as Stewart Lecturer in Anatomy. DR. MAXWELL has taken over the classes in clinical physiology so long conducted by DR. J. F. WILKINSON. MR. J. L. GLASSON, D.Sc., has succeeded MR. HERCUS as Lecturer in Natural Philosophy under PROFESSOR LABY.

On the clinical side, the most notable change has been the transfer of MR. T. P. DUNHILL from St. Vincent's Hospital, to be Vice-Director of the Surgical Unit at St. Bartholomew's Hospital, London. MR. J. F. MACKENZIE has become a Clinical Lecturer on Surgery at St. Vincent's Hospital. At the Alfred Hospital, DR. A. V. M. ANDERSON and DR. H. LAURIE act as Lecturers on Clinical Medicine with DR. MACKEDDIE and MR. J. S. BUCHANAN and MR. B. QUICK, with MR. R. C. BROWN, as Lecturers on Clinical Surgery. At the Melbourne Hospital, DR. J. E. NIHILL and DR. R. H. STRONG are at present acting as Lecturers on Clinical Medicine in association with DR. R. R. STAWELL, replacing DR. W. R BOYD and DR. J. F. WILKINSON.

Concerning buildings, a new School of Anatomy is being erected at a cost of over £60,000. Large additions have been made to the Department of Chemistry. The Natural Philosophy Building is being greatly enlarged. New wards and a new block for nurses are being provided in the Alfred Hospital. An out-door department for venereal diseases has been established in the Melbourne Hospital.

THE MEDICAL SCHOOL OF THE UNIVERSITY OF ADELAIDE.

THE UNIVERSITY OF ADELAIDE offers a qualifying degree in medicine and in surgery and higher degrees in medicine and surgery. The full course for the qualifying degree after March, 1923, will be six years. The regulations governing the new curriculum will be published during the year 1922. In the meantime, the former arrangements for the five years' course described in the previous Education Numbers will obtain. The changes contained in the new course are as follows:

The Senior Public Entrance Examination and the Higher Public Examination will be replaced by the Intermediate, the Leaving and the Leaving Honours Examinations. Admission to the medical course will be limited to students who have passed in the prescribed subjects in these substituted examinations. In the interval candidates who have taken physics, inorganic chemistry and biology at the Higher Public Entrance Examination, may pass on to the work of the second year in the new course, but they will be required to take physical chemistry and medical zoology.

In the six years' course the first year will be occupied with the study of physics, inorganic chemistry, physical chemistry, botany and zoology, including medical zoology. At the end of the year the student will be required to pass an examination in these subjects. Should he fail, he may be granted a supplementary examination in March, or he may be required to present himself for the same examination in all the subjects at the end of the second year. After the first examination has been passed, he enters his second year and takes the subjects of anatomy, histology, physiology and bio-chemistry and organic chemistry. No examination will be held at the end of the year. The student will continue to take the same subjects throughout the whole of the third year. In addition, he will attend a course of instruction in *materia medica* and pharmacology. The work in organic chemistry, however, will be discontinued during the third year. The second examination will be held at the end of the third year and will be on anatomy with dissections, histology, physiology and biochemistry, organic chemistry, *materia medica* and pharmacology.

After the student has passed the second examination he starts the work of the fourth year. This work includes medicine and surgery. Attendance at the Adelaide Hospital is required. Lectures will be given on the principles and practice of medicine and of surgery, on therapeutics, on public health and preventive medicine and on clinical medicine and surgery. The student will have to attend a course of tutorial instruction in medicine and surgery. He will act as medical clerk in the wards and as dresser in the out-patients' departments and in the wards. He will further attend a course of instruction and practical work in pathology and bacteriology and will be present at forty or more *post mortem* examinations. He will also be required to take a course of dentistry at the Department of Dentistry of the Adelaide Hospital. The clinical course at the Hospital is continuous from the beginning of May to the third week in October, without short vacations. Clinical work can also be carried out during the long vacation, either in the wards or in the Venereal Diseases Clinic or Isolation Department. No examination will be held at the end of the fourth year. During the fifth year he will attend further courses of lectures on the principles and practice of medicine and of surgery and on clinical medicine and clinical surgery, as well as demonstrations in regional and surgical anatomy and in operative surgery. He will further attend lectures and tutorial instruction in obstetrics. The course in pathology will be completed. He will hold the positions of medical clerk and of surgical dresser. He will be required to attend the *post mortem* room and witness at least forty autopsies. During his fifth and sixth years he will be required to attend twenty women in child-birth, either at the Queen's Home or at

the Adelaide Hospital or at the patients' homes. Attendance at the Venereal Diseases Clinic and at the Isolation Department is essential and will have to be effected during the long vacation or during the fifth year. At the end of the fifth year the third examination will be held. The subjects of examination will be clinical medicine, clinical surgery, regional and surgical anatomy, operative surgery, therapeutics, pathology and bacteriology and public health and preventive medicine.

The sixth year will be devoted to clinical lectures on general medicine and on general surgery, on diseases of children, on gynæcology, on forensic and psychological medicine, on diseases of the eye and of the ear, nose and throat and on medical ethics. The practical work will include the holding of the following positions: clerk and dresser in the gynæcological wards and in the out-patients' department, in the department for the diseases of the eye and in the department for the diseases of the ear, nose and throat at the Adelaide Hospital and at the Adelaide Children's Hospital. Attendance on twenty women in labour will be required, if not already completed, as well as six attendances at the pre-maternity clinic. The student will also be required to receive instruction on the administration of anæsthetics.

At the end of the sixth year the fourth or final examination will be held. The student will be examined in all branches of general medicine and surgery, including diseases of children, obstetrics, gynæcology, forensic medicine, psychological medicine, diseases of the eye and diseases of the ear, nose and throat.

The fees will be compounded into a regular contribution of £10 each term, amounting to £180 for the six years. This will include the fees for examination and for the degrees of Bachelor of Medicine and Bachelor of Surgery. In addition, the student will pay fees at entrance, for practical pathology, for bacteriology and for dispensing, aggregating ten guineas, one guinea for anæsthetics, seven guineas a year for hospital work until the third examination is passed and ten guineas each year thereafter until the fourth examination is passed. A further fee for dentistry and for instruction at the Children's Hospital of two guineas each complete the fees, except for supplementary examinations. The additional fees amount to thirty-nine guineas, bringing the total to about £221.

The higher degrees in medicine and surgery are granted to graduates of three years' standing who submit theses deemed to be of sufficient merit. The candidates may be examined in certain groups of subjects. The fees for examination are fifteen guineas and ten guineas for the degree.

POST-GRADUATE TRAINING.

PRIOR to the war post-graduate courses were not well developed, even in Europe. In Australia attempts were made from time to time to organize some form of systematic instruction for medical practitioners whose daily routine precluded attendance at a large metropolitan hospital. There is a grave risk for a medical practitioner engaged exclusively in private practice of stagnation. Study of books and current journals is apt to become fragmentary and irregular, unless some stimulus is introduced. Moreover, the absence of criticism of methods and of the work itself tends to deterioration of both without the practitioner being aware of it. The profession has consequently recognized the necessity of providing means for the continued instruction of practitioners, so that self-education can become a possibility and so that the individual can benefit from the experience of his life's work, notwithstanding the usual isolation attaching to private practice.

At the end of hostilities, a large number of young medical men were perforce kept in England and other parts of Europe, pending demobilization. Facilities were offered for post-graduate study at the majority of the medical schools in the metropolis of London and in other centres. The movement of post-graduate training obtained a new impetus and reached all parts of the Empire. In Melbourne the Council of the Victorian Branch of the British Medical Association seized the opportunity of a continuous inflow of returned medical officers and in the year 1919 two post-graduate courses were organized for these men who had been at the seats of war. Both courses were eminently successful. During the year 1920 the pressing need for a permanent organization was recognized in both Sydney and Melbourne. The Council of the Victorian Branch of the British Medical Association, encouraged by the success of the courses referred to, invited the University of Melbourne, the Walter and Eliza Hall Institute for Research in Pathology and Medicine and the medical staffs of six metropolitan hospitals to collaborate with them in forming a committee, called the Melbourne Permanent Committee for Post-Graduate Work. DR. J. W. DUNBAR HOOPER became the Honorary Secretary of this Committee and DR. A. V. M. ANDERSON, DR. DUNBAR HOOPER and DR. J. H. ANDERSON exhibited an extraordinary amount of energy and foresight and with the competent aid from the other members of the committee succeeded in inaugurating an excellenet course in November, 1920, followed by a second course in November, 1921. In the interval series of lectures were arranged and served a very useful purpose. The Committee is now well established and medical practitioners in Victoria may look forward each year to a well-planned course, organized in a manner calculated to cater for the needs and tastes of all. Experience is being gained at each session and the few shortcomings of the early endeavours have now disappeared. If a Victorian practitioner neglects to take advantage of aid proffered him and falls behind the times, he has but himself to blame.

Toward the end of the year 1920 the Dean of the Faculty of Medicine of the University of Sydney proposed to the New South Wales Branch of the British Medical Association that a committee should be formed to draft a scheme for the holding of post-graduate courses. The Council of the Branch duly considered the proposal and formulated a scheme, which was then submitted to the Dean. The scheme was placed before the Medical Faculty and later before the Senate of the University. Approval of these bodies having been gained, it remained for the University authorities to make the necessary arrangements. The matter was entrusted by the Senate to the University Extension Board and a programme was drawn up for the holding of the first post-graduate course in January, 1922. The course covered a wide field and proved of very great value to a large number of practitioners. It was recognized at an early stage that a fundamental mistake had been made by the Senate in referring the course to the Extension Board. This Board is composed of non-medical members of the University and moreover the Board had had no previous experience in the organization of a course as elaborate as a post-graduate medical course needs be. The active cooperation in the work of organization of the medical staffs of the several metropolitan hospitals will, no doubt, be secured for the next and all future post-graduate courses in Sydney.

The development of the post-graduate idea in Europe and Amereica since the war offers valuable opportunities for specialized study to Australian practitioners. In Great Britain there is a continuous provision of classes. The Post-Graduate Association of London, an organization established under the auspices of the Fellowship of Medicine, 1, Wimpole Street, London, W., 1, has arranged courses to supply the needs of visiting medical practitioners. In each issue of *The British Medical Journal* special courses and lectures are announced, while full particulars can be obtained by application to the secretary of the particular organization providing the course selected. In this connexion mention should be made of the facilities provided at the several medical schools in London and other English cities for tuition for graduates seeking higher degrees in medicine or surgery or in special branches of medicine and hygiene. Similar arrangements will be found in Scotland and Ireland, both for ordinary post-graduate study and for the acquisition of higher degrees.

Information has recently been published in THE MEDICAL JOURNAL OF AUSTRALIA concerning a special subject course at l'Hôpital Saint Louis in Paris. Other courses are also open to visiting doctors. Somewhat elaborate preparations have been made in Vienna for the convenience of British and American practitioners. Further particulars of these courses can be obtained by application to the Editor of THE MEDICAL JOURNAL OF AUSTRALIA. In brief, it may be stated that the travelling practitioner will find in almost every country of the world with western development a cordial reception and adequate provision for technical study in all branches of medical science.

The Public Services.

PUBLIC HEALTH SERVICES.

COMMONWEALTH OF AUSTRALIA.

THE COMMONWEALTH DEPARTMENT OF HEALTH, which has succeeded and included the Commonwealth Quarantine Service, has come into existence as the inevitable development from the activities of the Quarantine Service.

The occurrence of extensive outbreaks of epidemic disease within Australia pointed clearly to the necessity for some method of procedure other than that which had failed to secure harmonious cooperation between States and effective control of disease.

The extension of the responsibilities of the Commonwealth in various ways, for example, its increased responsibility over tropical dependencies, the application of legislation for the control of the mercantile marine, the important problems arising out of the war and other similar matters, all pointed to the necessity for more organic expression of the responsibilities in connexion with public health which the Commonwealth was inevitably obliged to accept. As a result, the Commonwealth Department of Health has come into existence and has been actively concerned with the following functions:

Sanitation in the Mercantile Marine.

Under the *Navigation Act* a standard of hygiene was partly prescribed and partly indicated by the power to make regulations. This applied in particular to the quarters occupied by the sailors. Up to quite recently the standard of accommodation in the forecastle and other parts of the ship devoted to the accommodation of the crew had been accepted as sufficient, which was far below modern standards of decent sanitation and comfort. Under the *Navigation Act* it has been necessary for this accommodation to be revised and this work has naturally been entrusted to the Commonwealth Department of Health. It is not too much to say that the accommodation provided for the crew on all Australian vessels has undergone a complete revolution and it is now universally brought up to a standard in conformity with modern conceptions of sanitation and personal decency and comfort.

Control of Venereal Diseases in the Mercantile Marine.

As the result of an awakened conscience in respect of the necessity for the control of venereal diseases there has been increased activity all over the world. This found expression in Australia some years ago by the establishment of port hospitals by this Department, into which are taken all members of ships' crews suffering from these diseases. These men are treated until free from infection or until the departure of their ship from the port.

Preparation of Antitoxins, Vaccines and Other Biological Products.

As is now well known this Department during the war undertook the preparation of these biological products and established the Commonwealth Serum Laboratories. These have proved to be entirely successful and it has been found necessary to extend the building. The construction of a new wing has already been commenced and the preparation of veterinary biological products, as well as some research work, will be carried on.

Hookworm Work.

The importance of hookworm having been demonstrated, both in the Commonwealth and in the two dependent territories of New Guinea, it became evident that a concerted campaign should be arranged for, at first in conjunction with the International Health Board and subsequently by this Department working in association with the States. With this campaign it is expected that control operations will continue until hookworm becomes a pathological curiosity instead of the economic disaster which it now is.

Tropical Hygiene.

The necessity for extending the conceptions of practical work in tropical hygiene and of improving the administrative machinery, in order that tropical public health might become as successful in its application as the other activities of the Department, has led to arrangements being made for the progressive extension of activities in this field, so that effective work may be carried on, both in the Commonwealth and in New Guinea. Already an officer of this Department has been stationed at Rabaul and has taken control of laboratory work in that Territory, being at the same time in charge of hookworm operations.

Industrial Hygiene.

The possibility of successful work in the field of industrial hygiene in Australia is almost unlimited, inasmuch as nothing of any importance has been done along modern lines in this field hitherto. Comprehensive investigations have been carried out upon very complete lines, but no effort has yet been made in the direction of continual health supervision in industries, as it is known in other countries. This work has now been taken in hand by this Department and it is expected that material advances will be made along these lines.

Public Health Laboratories.

The need for public health laboratories in country districts has been recognized for a long time in Australia and steps have now been taken for the erection of these laboratories at different important country centres. The Bendigo laboratory is about to be opened; the construction of the laboratories at Port Pirie and Lismore is in hand and other laboratories will be commenced at an early date.

It is obvious that for all these activities the type of officer that is required for success will be the best equipped amongst recent graduates. This class of work may not, in fact does not, attract all temperaments, but it is making an appeal on account of the demonstration of success which it carries with it to an increasingly large number of medical graduates.

The salary range, although not at present acting under the terms of the award, has been accepted as already specified for Quarantine Officers and inquiries will be welcomed from all medical graduates with good academic records as to the prospects of work in the above fields in this Department.

NEW SOUTH WALES.

THE DIRECTOR-GENERAL OF PUBLIC HEALTH is the officer charged with the control of the Public Health Service of New South Wales. He is responsible through the Under-Secretary to the Minister of Public Health, who is the political head. The Director-General is also President of the Board of Health, which has numerous statutory duties, both advisory and administrative, but does not directly control the service or its personnel. The Department of Public Health is responsible not only for the administration of health measures, but also for the general control of many hospitals and similar institutions.

Salaried Staff.

The salaried staff comprises the following:

Head Office (Administrative)—

Director-General of Public Health.
Senior Assistant Medical Officer of Health.
Assistant Medical Officer.

Government Medical Officers—

Government Medical Officer (Metropolitan) and Police Surgeon.
Second Government Medical Officer.
Third Government Medical Officer.

Microbiological Laboratory—

Principal Microbiologist.
Assistant Microbiologist.
Second Assistant Microbiologist.

Medical Officers of Health—

Medical Officer of Health of the Metropolitan District.
Medical Officer of Health of the Hunter River District.
Medical Officer of Health of Broken Hill (part-time).

Coast Hospital—

Medical Superintendent.
Assistant Medical Superintendent.
Senior Assistant Medical Officers (three).
Assistant Medical Officers (five).

Rookwood State Hospital and Asylum—

Medical Superintendent.
Assistant Medical Officer.
Junior Resident Medical Officer.

Liverpool State Hospital and Asylum—

Medical Superintendent.

Newington State Hospital and Asylum for Women—

Visiting Medical Officer (part-time).
Resident Medical Officer (female).

Waterfall Sanatorium for Consumptives—

Medical Superintendent.
Assistant Medical Officer.

Lady Edeline Hospital for Babies—

Visiting Medical Officer (part-time).

State Asylums for Aged Men, Parramatta—

Visiting Medical Officer (part-time).

David Berry Hospital, Berry—

Visiting Medical Officer (part-time).

Duties of Officers.

The part-time officers are attached to establishments where the whole time of an officer could not be profitably utilized and are medical practitioners already engaged in private practice in the neighbourhood.

The officers of the administrative staff and the Medical Officers of Health are required to hold a diploma in public health. Their duties are chiefly concerned with preventive medicine. It was originally intended that the whole State of New South Wales should be cut up into districts, to each of which a medical officer of health should be appointede. The *Public Health Act* made provision for this and a scheme has long been drawn up making provision for five whole-time Medical Officers of Health in the State, in addition to the present establishment. The scheme is at present in abeyance, but it is hoped to revive it when the state of the public finances permits.

The scheme also includes the institution of a small mobile laboratory prepared to move to any part of the State to deal with local outbreaks of infectious disease. The realization of this scheme will have a most beneficial influence on the public health and will enhance the prospects of the young medical man who desires to take up the practice of preventive medicine.

The Government Medical Officer of Sydney and his staff deal with all police work (including intricate medico-legal cases throughout the State), the admission of destitute persons to hospitals and benevolent asylums, the medical examination of candidates for entrance to the Civil Service and medical examinations under the *Workmen's Compensation Act* and *Superannuation Act*.

Hospitals and Asylums.

The Coast Hospital is the largest general hospital in Australia. It contains seven hundred beds and has a staff of ten resident medical officers. Besides general medical and surgical wards, this institution is the infectious disease hospital for Sydney and it includes in its wide area wards for venereal diseases and for lepers. It affords very unusual opportunities for acquiring professional experience and appointments on its staff are much sought after. Candidates for appointments on the junior staff are expected to have had experience on the house staffs of other public hospitals.

The other State hospitals and asylums were originally purely asylums. Some of them are, however, developing into hospitals with medical and surgical activities.

Microbiological Laboratory.

The Microbiological Laboratory is an institution with very wide activities. It is always engaged in important investigations on the public health side and has achieved a notable amount of original work in direct relation to the health of the community. Among its more routine activities are the examination of throat swabs, sputum, tumours and every variety of pathological specimens for public hospitals and for medical practitioners on behalf of patients whose means will not permit of their consulting a bacteriologist in private practice.

VICTORIA.

THE posts available under the Public Health Service of Victoria are as follow:

(1) Chief Health Officer.

The *Health Act, 1919*, provides for the appointment of a Chief Health Officer, who shall also be Permanent Head of the Health Department and Chairman of the Commission of Public Health and fixes the minimum salary at £1,000 *per annum*.

(2) District Health Officers.

The Act provides for the division of the State into health areas and for the appointment of District Health Officers to such areas.

The State has been divided into six health areas; four of these positions will be shortly filled. The salary payable begins at £700 and rises by yearly increments of £50 to the maximum of £850.

(3) Health Officers.

These are attached to the central office and may be called upon to do general work or special work, such as that connected with tuberculosis or venereal diseases or industrial hygiene, etc.. At present there are three positions, but it is anticipated that as the public health work expands, further special posts will be created. The salary attached to these positions is £700 to £750.

No medical practitioner is eligible for permanent appointment to the Public Health Service of the State unless he holds a qualification in public health.

(4) Assistant Health Officers.

The mere possession of a qualification in public health does not necessarily connote that the holder thereof is competent to fill an administrative post. The practical training included in the curriculum for the diploma of public health cannot possibly give the necessary experience for this purpose. The lack of opportunity in this direction is recognized and the question of creating positions that will enable recent graduates to acquire a qualification in public health under practical training conditions is under consideration.

(5) Municipal Officers of Health.

The *Health Act* provides that municipal councils shall appoint Medical Officers of Health, either singly or in combination. This latter provision was included in the Act because it was realized that no municipality except the City of Melbourne was in a position to appoint a full-time Medical Officer at an adequate salary. Provision was therefore made for two or more adjoining municipalities to unite for this purpose. So far, no movement in this direction has been observed. The salaries paid by Councils for part-time medical officers range from £10 to £250 *per annum*.

A full account of the evolution of the public health administration in Victoria was published in THE MEDICAL JOURNAL OF AUSTRALIA, April 30, 1921, pages 350 to 352. In this article the Chairman of the Commission of Public

Health dealt with the provisions of the *Health Act, 1919*, and indicated the direction in which the work of his department might be expected to develope. The salaries payable at the present time are considerably larger than those paid in the past. On the other hand, there does not appear to be any prospect of a revision of the rates of remuneration. There is no provision in the public service in Victoria for pensions or superannuation. Every public servant is required to insure his life in the form of an endowment policy to the extent of the maximum amount of his salary. If the amount of endowment be insufficient for the needs of the individual for the probable remaining years of life after retirement at the age of sixty years, he is expected to exercise sufficient thrift to enable him to save whatever supplementary sum he may regard to be necessary.

QUEENSLAND.

THE administration of the public health legislation in Queensland is vested in a Central Board of Health under the ministerial control of the Chief Secretary. The Board is placed in the charge of the Commissioner of Public Health, whose salary is £800 *per annum*. The Commissioner and the members of the department are appointed by the Chief Secretary and their appointments are not subject to the provisions of the *Public Service Act*. At present there is no Ministry of Health in the State. The staff of the Board consists of the Health Officer, whose salary is £650 *per annum*; the Principal Micro-Biologist, whose salary is from £650 to £700 *per annum*; and the Medical Officer for Venereal Diseases, whose salary is £650 *per annum*. In addition, there is a part-time Tuberculosis Medical Officer, a series of part-time Medical Officers of Health appointed in various parts of the State and in emergency, such as the present outbreak of plague, a number of part-time health officers appointed to carry out special duties. The offices of the Central Board of Health are situated in South Brisbane. The lay staff includes the personnel in the Commissioner's offices, the staff in the micro-biological laboratories, the nurse engaged by the Department and the sanitary staff.

Formerly there was a Northern Office, situated at Townsville. In 1916 this office was abolished and two of the sanitary inspectors were removed to Rockhampton and Cairns respectively, where they are required to look after the food supply and sanitation.

The Public Health Service in Queensland differs in some respects from that of the other States, in that Queensland lies to a considerable extent within the tropics and certain tropical diseases are relatively prevalent. The most important of these diseases is filariasis. Hookworm disease has been found to be commoner in certain areas of Queensland than in other parts of the Commonwealth. Dengue fever is frequently encountered and there is a small amount of malaria. Queensland ports are the first ports of call from some of the eastern countries where dangerous infective diseases prevail. The protection of the mainland, however, is a function of the Department of Health of the Commonwealth. The State Board of Health is only called upon to deal with exotic disease on those rare occasions when, despite the close supervision and constant vigilance of the Quarantine Medical Officers, this form of infection gains an entrance. The presence of the tropical diseases mentioned above offers special opportunities to the Department and opens up problems in preventive medicine of unusual interest. It will be noted that the number of whole-time appointments is small and the salaries attaching to these positions are not liberal. There is no security of tenure of office. It is not improbable that the conditions may be improved when a Ministry of Health is created and more adequate provision is made for administrative purposes.

The *Venereal Diseases Act*, modelled on the Western Australian measure, is administered by the Commissioner. Formerly the Commissioner had power under the *Health Act* to submit prostitutes to compulsory examination. This provision was not enforced, because difficulty was experienced in arriving at a satisfactory definition of the term "prostitute." Under the existing regulations prostitutes may be required to submit themselves to examination. Venereal diseases are now notifiable and failure to submit to treatment for a prescribed period is an offence punishable by a fine. An isolation hospital for patients suffering from venereal diseases was opened in 1920. In addition, there is a venereal diseases clinic attached to the Health Department and a second clinic in the city of Brisbane.

Other information concerning the development of the Public Health Service in Queensland will be found in an article published in THE MEDICAL JOURNAL OF AUSTRALIA of April 30, 1921.

SOUTH AUSTRALIA.

THERE is in South Australia no Ministry of Health. As long ago as 1898 an elaborate Act of Parliament was introduced for the purpose of controlling the health of the community. The Act was based on the principle of local government with central authority. Unfortunately, the scheme has not proved successful, as is shown by the opinion expressed by a South Australian authority that there seems to be no career for a medical practitioner in the Public Health Service of the State. The State is divided into districts; the municipal or district councils act as the local health boards. The central authority is called the Central Board of Health. The latter assumes control of certain sparsely populated districts under conditions which render it difficult or impossible to constitute a local board of health.

The Central Board of Health consists of the Chairman, who receives a salary of £750 *per annum*. His appointment is subject to the provisions of the *Public Service Act*. There are, in addition, two permanent members of the Board appointed by the Governor and two members elected every two years, one by the local boards in the City of Adelaide and its suburbs and the other by the remaining boards. The local boards are required to appoint officers of health. According to the provisions of the Act, this officer must be a medical practitioner "where practicable." At present not one of the local boards employs a whole-time officer of health. The appointment and dismissal of the officer of health are subject to the approval of the Central Board of Health. The Central Board has sanctioned the appointment of non-medical officers on various occasions. There is no medical inspector in the Department. The appointment of sanitary inspectors by the local boards may be at the discretion of the Central Board.

Reference to the article contributed by the Chairman of the Central Board of Health and published in THE MEDICAL JOURNAL OF AUSTRALIA of April 30, 1921, will reveal the plan on which the administration of the Act is carried out. It is regrettable that the service has to be maintained by the activities of a single whole-time officer, who derives but little assistance from the part-time officers appointed by the local boards of health. These local health officers in the country districts often find that it is difficult to carry out their duties in the manner indicated by the Central Board without offending persons who are their private patients.

WESTERN AUSTRALIA.

THE PUBLIC HEALTH SERVICE OF WESTERN AUSTRALIA offers only four full-time appointments under the central health authority, the Public Health Department of Western Australia, for medical practitioners.

The medical officers are:

(1) The Commissioner of Public Health, who, also, as Principal Medical Officer, controls some twenty Government hospitals, the homes for the aged, the Wooroolloo Sanatorium for Consumptives and the King Edward Memorial Maternity Hospital and disburses subsidies to some twenty-eight assisted hospitals.

(2) The Medical Officer of Health, who is also Assistant Inspector of Hospitals.

(3) The Government Pathologist and Bacteriologist.

(4) The Medical Officer of Schools.

There are, in addition, medical practitioners acting in a part-time capacity as medical officers of health to local health authorities and receiving remuneration varying from £15 *per annum* in the smaller districts to £250 in the case of the City of Perth.

It will be seen, therefore, that Western Australia cannot at the present time offer many openings for those seeking a career in the public health sphere, but it is hoped that the time is not far distant when the State will for administrative purposes be divided into a number of districts (four or five) with a full-time medical officer of health in charge of each.

At least three more school medical officers could be well employed and, further, much-needed work could then be carried out in country districts.

The dental service similarly requires considerable extension, while local laboratory provision is urgently necessary at several other points in the State.

Unfortunately, the Public Health Service of Western Australia has always been handicapped by the absence of a medical school in the State, so that the professional officers have lacked that close touch with academic concourse and practice which are such great stimulating and educating influences to professional men.

A specialist, be he medical officer of health, pathologist or school medical officer, suffers much, therefore, from professional isolation. In the absence of facilities for consultation with others, he must be prepared to act largely upon his own initiative and judgement. He finds the general practitioner far too busy in his own sphere to discuss preventive medicine and consequently is thrown back upon book or journal reading as his only means of development.

The salaries attaching to the three whole-time positions are as follows: The Commissioner of Public Health is paid from £800 to £1,050; the Government Pathologist and Bacteriologist is paid from £672 to £804; the Medical Officer of Health is paid £672 to £804 *per annum*. The positions necessitate the employment of medical practitioners with sound training in hygiene and preventive medicine and with resourcefulness and self-reliance. Western Australia is a State of wide spaces and scattered communities, with difficulties of travel and scant medical facilities. It offers problems both numerous and varied to the keen worker. Opportunities for research exist, although at times routine work may occupy the medical officers' whole day. Western Australia is, relatively speaking, well served in so far as its public health staff is concerned. This staff has been responsible for the introduction of much important and original legislation. The great defect of the Department is to be sought in the very limited financial support is receives. Until the public and the Government recognize the economic value of a liberal provision for work aiming at the prevention of disease, this limitation of the utility of the Department will continue.

TASMANIA.

THE administration of health matters in Tasmania has been subject to many vagaries during the past quarter of a century or more. For a considerable time the control was exercised by a Board of five members. In 1903 a new Act was introduced, according to which the administration was placed in the hands of a Director of Public Health, to whom the local authorities are directly responsible. The Director of Public Health is called the Chief Health Officer. He is required to have a special knowledge of sanitary and bacteriological science. He is paid a salary of from £700 to £800 *per annum*. His staff consists of one or more assistant health officers, who are paid from £500 to £600 *per annum*, and the usual sanitary inspectors and clerical staff. A part-time Pathologist and Bacteriologist is engaged and works in a small laboratory at Hobart. The local health authorities are the municipal councils. These local authorities employ medical practitioners as part-time medical officers of health and many of them pay the minimum salary of £10 *per annum*. The *Federal Quarantine Act* is administered by the Department on behalf of the Commonwealth Government. Four part-time Quarantine Officers are engaged in connexion with the inspection of vessels subject to quarantine.

The administration of the *Venereal Diseases Act* has been placed in the hands of the Chief Medical Officer and its provisions have been carried out more or less rigidly. Medical practitioners in charge of persons suffering from venereal disease or suspected to be so suffering are required to notify the fact without disclosing the name of the patient to the Department. The Act has been modelled on the Western Australian Act and contains all its provisions.

The Chief Health Officer is charged with the inspection and supervision of all public hospitals. The *Hospitals Act* places the control of the licensing and supervision of management of private hospitals in the hands of the Chief Health Officer. Within the past few months the Chief Health Officer has been endeavouring to find a plan whereby the differences existing between the Tasmanian Branch of the British Medical Association and the Tasmanian Government in regard to the question of hospital administration might be removed. We understand that the proposals include extensive concessions.

Among the other legislative measures which are administered by the Public Health Department, the following may be mentioned: The *Food and Drugs Act*, the *Places of Entertainment Act* and the *Midwives Act*.

From the above short account it will be seen that the opportunities offered to medical practitioners by a career in public health are very limited. There are only two whole-time officers, while the part-time medical officers employed by the local health authorities frequently find that their interests in private practice conflict to a certain extent with their interests as health officers.

THE SCHOOL MEDICAL SERVICES.

NEW SOUTH WALES.

CONTRIBUTED BY SPECIAL REQUEST BY DR. HARVEY SUTTON, PRINCIPAL MEDICAL OFFICER OF THE DEPARTMENT OF PUBLIC INSTRUCTION OF NEW SOUTH WALES.

PARAPHRASING Osler's prophecy, it may be asserted that preventive medicine is the medicine of the near future and school medical work is the best modern example of the application of preventive principles to human development. Generally speaking, it may be defined as a health service within an education department. By the medical examination of children its aim is to be a clearing house where children may be classified. Those with remediable conditions are then drafted off for attention at the hands of the curative branches of the profession, with very great benefit to their school progress and health.

Such work—the rapid, accurate recognition of deviations from the normal—demands a high standard of diagnostic ability and the capacity of handling children, in addition to a working knowledge of several specialties—eye, ear, nose and throat, orthopædics, etc.. To those interested in the study of children the work is fascinating in its interest. Whereas hospital work and even general practice deals largely with selected populations, not necessarily at all typical of the general population, in school all children are examined and here alone can be obtained a real idea of the existing generation of human beings. Owing to its universality, its power for good is enormous, benefiting in New South Wales directly a school population of over 300,000 children.

Beside the medical examination of school children, other important duties exist, such as the sanitary inspection of school buildings and playgrounds, the teaching of hygiene, the supervision of the health of teachers, the control of epidemics in school children, etc..

Such is the routine work of every officer. Like all routine work, the interest of the individual decides whether it is to be absorbing work or mere drudgery. Judging by experience of the world and especially England it is forming a satisfactory life-work for hundreds of the ablest graduates of medicine.

In recent years every large scheme has demonstrated the existence of special types of work and of children. In New South Wales the Teachers' College, with over six hundred trainees, is the chief avenue to the teaching service and a very close supervision is being established over the health of these students, in addition to the yearly course on hygiene, now a full subject with thirty lectures. Again, the health of high school pupils is an important problem, dealing with the very difficult age of adolescence. Combined with this are lectures on personal hygiene (including sex) to the girls.

Another specialist activity of absorbing interest is the medical examination, including mental testing, of the 2,000 of more delinquents at the Children's Court Shelter. This phase of medical psychology is most difficult and our knowledge only in its infancy, yet it may be of inestimable value to the whole after-life of the child.

A further important specialty is that of Travelling Ophthalmologist. One officer is in charge of the Travelling Hospital (rural clinic). Another is soon to be appointed to carry out refractions and to coordinate the recognition and treatment of trachoma.

Facilities for research and further specialties are gradually being developed. The advent of special schools for the feebly-gifted, for myopes, for cripples, for stammerers, for hard-of-hearing children cannot long be delayed. Open-air schools are certain to spread and physical training and swimming are being brought more closely in touch with the medical side and thus more and more opportunities made for the development of specially expert officers with better salaries and conditions.

School work is hard, not easy, work and the individual will reap in interest and enjoyment just so much as he puts in in personal keenness and enthusiasm.

The fifth-year medical student or recent graduate, whose ambition is to render the greatest possible social service to the community, yet desires that the trivial round, the common task, will furnish all he need to ask, can have no better outlet for personal energy and enthusiasm than in the School Medical Service.

Here is pioneer work, rapidly developing on a sound scientific basis, demanding to the fullest measure every ability that the individual may possess. The candidate for a position in the service should serve for a full year at a good general or children's hospital, where, in addition to improving his medical education, he renders his financial future (providing good health) reasonably certain. During this period close study should be especially given to the children's eye, ear, nose and throat work.

The general practitioner who, after years of practice tires of the irregular, the constant argument with parents and friends, the large percentage of bad debts and the inconstancy of fortune, looks to a position which gives constant hours, steady work, certainty of tenure, generous holidays, a competency on retirement and sufficient, if not excessive, pay, free scope for trained minds and the attraction to so many of real public service to their generation, can find these conditions in the health service of the education department.

At present the salaries of medical officers on entrance have not ben finally adjusted, but are approximately £600 for men and £525 for women, later rising to £650 and £550 respectively, with specialist posts at £800. All actual travelling costs are paid. When engaged on rural work the officer receives a living allowance of £168 *per annum*, which represents a maintenance allowance for the forty-two weeks of the school year.

It will be noted that the inequality of salary for the two sexes is levelled up by the type of work asked of each, the men visiting out-back places, the women dealing mainly with railway towns.

Very little work outside school hours is or can be done, *i.e.*, five days a week and public service holidays of three weeks and public holidays are thus amplified to approximately eight weeks a year. Sick leave on full pay for one month is granted, if necessary.

The deduction for superannuation allowance in New South Wales, though increasing with age of entrance, is not unduly heavy and eleven units, covered by a salary of £600 *per annum*, means a pension of £286 on retirement at sixty years or at death the payment of half this sum to the widow *plus* £13 for each child. In the case of women, the actual cash paid by the officer is returned to the nominated person on the officer's death. If an officer, either male or female, resigns earlier than the retiring age, the actual cash paid in is returned.

While the salary is fair as compared with the possible emoluments of general practice, it is in cash free from the heavy cost of equipment, house attendance, motor-car, etc., and the £600 is probably as remunerative as a practice returning three times that amount. The generous conditions and privileges more than make up for any deficiency.

There are at present twelve medical officers in addition to the Principal Medical Officer.

VICTORIA.

COMPILED FROM INFORMATION KINDLY SUPPLIED BY SPECIAL REQUEST BY DR. JANE S. GREIG, MEDICAL OFFICER OF THE DEPARTMENT OF EDUCATION OF VICTORIA.

THE SCHOOL MEDICAL SERVICE IN VICTORIA is at the present time conducted by three whole-time medical officers, although provision exists for the appointment of four. The service is under the control of the Education Department. In the early stages the work was entrusted to the Department of Public Health, but after a period of initiation it was found expedient to transfer the service to the Department of Education. The work of the medical officers includes the medical examination of children in elementary State schools, in Roman Catholic schools and in special schools, the examination of school buildings and school equipment, the medical examination of truants and neglected children, the medical examination of pupils in high schools, the medical examination of teachers on entering the service of the Department and on sick leave, the delivery of systematic lectures on hygiene, the setting and correcting of examination papers on hygiene for the diploma of education at the University of Melbourne, the supervision of the work of school nurses and bush nurses, the supervision of the cleansing and disinfection of school buildings and certain departmental work. In the event of an outbreak of epidemic diseases among school children the school medical officers may be required to investigate the conditions and to submit reports. Under the present conditions approximately 6% of the children attending the schools are examined. The salaries payable vary between £444 and £600 *per annum*.

It is held that a complete system of medical inspection of school children must be linked up with facilities for the treatment of defects found. These facilities may or may not be directly controlled by the Department. At the present time the medical officers record the defects and notify the parents when treatment is regarded as necessary. The parents are informed of the various channels through which treatment may be obtained. Through the activities of the school nurse pressure is brought to bear on the parents, with the result that an increasing number of children are receiving treatment, either at public hospitals or from general practitioners.

For the treatment of eye affections the number of specialists would appear to be inadequate. The majority of ophthalmic surgeons are in the metropolis and the larger country towns. Eye defects in country children would therefore remain to a large extent untreated were it not for the employment of a travelling optician who treats the majority of eye troubles in children resident in the country. Dr. Greig points out that the only way in which this difficulty could be met, would be by the appointment of an ophthalmic surgeon to the staff.

The work of medical inspection necessarily includes the examination of the teeth and the registration of the occurrence of dental caries. Dental treatment is given gratuitously to a limited number of children at the dental hospitals and at the children's hospital. In April, 1921, a school dental centre attached to the Department was opened for the treatment of dental defects of school children. The centre was placed under the supervision and control of the Chief Medical Officer. The staff consists in two experienced dentists and three nurses who served with the Aus-

tralian Imperial Force acting as dental attendants. The work at present is confined to the metropolitan area. As the staff is not large enough to cope with all the work in Melbourne, children in the first and second grades in the elementary schools are selected for treatment. It has been shown that the most important age for treatment of dental caries is between six and eight years, when the first permanent teeth are being erupted. The majority of the children in the first and second grades belong to this age-group. The number of children attended at the centre each month is about six hundred and fifty. Although a considerable number of extractions have to be carried out, an attempt is made to follow the principles of conservative dentistry. Arrangements are being made for the supply of tooth brushes and a suitable dentifrice at a minimum cost. The tooth brushes are being imported from England.

The school nurse acts under the direction of the school medical officer and follows up the children until the defects detected are remedied. In some of the poor districts the effect of sending a printed notice is that between 30% and 35% of the children receive treatment. A single visit from the nurse raises the frequency of treatment to 70%, while repeated visits result in between 80% and 90% of the children being treated. The nurse also deals successfully with truant children.

An open-air school, with accommodation for twenty-five children, has been established at Blackburn. The medical officers selects children for attending this school. Ill-nourished children, anæmic children and children who have suffered from tuberculosis and the disease has been arrested and who have been in contact with consumptives, are chosen for this purpose. The hours of lessons are short and long periods of rest are provided. The children are given a meal of milk and bread and butter on arrival and a hot mid-day meal of two courses.

There are two schools for mentally defective children, accommodating in the aggregate about one hundred and fifty. The work at these schools is controlled in the first place by a careful medical examination, with treatment of all physical defects and secondly by a careful psychical examination. The training of the child is adapted to the individual disabilities discovered at these examinations. It is regarded as essential that the medical inspector should collaborate as far as possible with local medical practitioners, not only in regard to the problems of mental deficiency, but also on all other aspects of the school medical officer's work.

SOUTH AUSTRALIA.

CONTRIBUTED BY SPECIAL REQUEST BY DR. GERTRUDE HALLEY, MEDICAL INSPECTOR OF SCHOOLS, SOUTH AUSTRALIA.

THE scope of the medical inspection embraces the examination of all children attending the primary schools at least twice during their school life, this examination to include weighing, measuring, testing sight, hearing, examining teeth, throats, chests and backs and reporting any defects likely to interfere with the educational progress of the child to the parents and to give instructions to the teachers in regard to any special case.

The Medical Inspector also deals with all cases of infectious diseases occurring in schools, sending instructions to teachers in regard to the infected children and arranging for the disinfection of schools. When necessary schools where an epidemic has occurred are visited and the children examined and a report on the hygienic conditions of the premises is sent in. The Medical Inspector meets the parents after the examination of the children in the school. This is an important part of the work. A few minutes' personal talk with the mother is of more value than any written notice.

The Medical Inspector also tests any mentaly defective children. Instructions are given to the teachers for any special treatment that is possible in a general school.

All women students are examined before entrance to the Training College. Students absent for three days or less for illness are also interviewed. Lectures on school hygiene are given to all students in the Training College. Special lectures and practical work on home nursing and first-aid are given to the students doing the domestic arts course.

The medical inspection of schools is directly under the Director of Education. In dealing with communicable diseases the Department's officers cooperate with the Central Board of Health and local boards of health. All cases of infective diseases occurring in the schools are reported to the Department by the teachers. A copy of these notifications is sent daily to the Central Board of Health, who in return sends a copy of the notifications of infective diseases occurring among children of school-going age reported to them.

The staff consists at present of one Medical Inspector, a trained nurse, who assists the Inspector in the examination of the school children, a disinfecting officer, who visits the schools to disinfect when a child suffering from an infective disease has attended in a condition likely to spread infection.

A dentist has just been added to the staff. His duties are to attend to the children in out-back schools, where it is impossible for them to visit a dentist. His work is also largely educational. Lessons will be given in the schools on the care of the teeth. A trained nurse has been appointed to assist the dentist in his work. The nurses, with a clerk, assist in compiling records of the work of the Medical Branch of the Education Department.

TASMANIA.

CONTRIBUTED BY SPECIAL REQUEST BY DR. ETHEL M. HAWKINS, MEDICAL INSPECTOR OF SCHOOLS, TASMANIA.

SCHOOL medical inspection affords to the medical practitioner an opportunity of helping to establish a high standard of national health. If provides the unique opportunity of the study of preventive medicine. It also furnishes the occasion for the study of the beginning of disease and the understanding of its crippling effect and of its relation to education and growth of the mind.

In school children it is the beginning of disease, potential illness, which must receive attention. This implies the most careful search for the first subjective symptoms and the first signs of departure from the normal. Following the discovery of these must come the prevention of the disabling effects of disease. Childhood is the time for repair and for strengthening the natural defences of the body and treatment at this age can be made rational, educational and instructive, a direct and invaluable means of preventive medicine.

Tasmania, although a very small island, presents great variety in its physiography and climate and these have an influence on the incidence of some diseases. In the midlands, where the altitude is fairly high, catarrhal conditions of the respiratory passages are not so numerous nor so serious as in the valleys of the large rivers of the south. Enlargement of the thyreoid gland is also more commonly found in the river valleys.

During last year, under the direction of the Department of Public Health, a special report was made concerning all cases of enlargement of the thyreoid gland. In some children of very tender years it showed a slight enlargement. It is hoped from these reports to find a guide to the cause of this condition.

One of the most important problems of preventive medicine is the prevention of dental caries, with its far-reaching effects on general health.

The Education Department of Tasmania, realizing the importance of dental treatment, established some years ago two dental clinics, one for the northern half of the island and the other for the southern half. These clinics were taken during the summer months, from September to April, to the country and during the winter to the cities. This branch of the medical work was extended last year, by the appointment of two additional dentists, so that at the present time there are dental clinics operating permanently in Hobart and Launceston and of the remaining two, one visits the country schools of northern Tasmania and the other the country schools of southern Tasmania. In the country a town is made a centre and to this centre

on a day appointed the children from the surrounding schools may come. Almost without exception the children attending the school at the centre see the dentist, but only a few come in from the surrounding schools. The visit of the dentist, besides being a benefit to the children regarding the actual treatment, provides a great stimulus for the care of the teeth.

In Tasmania the work of school inspection, apart from the dental branch, lacks completeness. This is mainly due to the difficulty of obtaining treatment. The towns are small and only a few have a resident medical practitioner. The people, therefore, prefer to visit one of the cities, but this means a large expense and unless the condition of the sufferer appears urgent, they are unwilling to incur this expense and to take the time from their occupations.

There is some provision for the education and care of feeble-minded children in Tasmania and an Act of Parliament, called the *Mental Deficiency Act*, was passed a short time ago. This is receiving consideration by the Education Department.

The medical inspectors travelling throughout the State have the opportunity of spreading abroad a better knowledge of hygiene. Students in the Training College receive lectures in this subject and when they receive their appointments, put this knowledge in practice in the management of their schools. The children, in receiving their education, also receive a knowledge of the laws of hygiene, thus benefiting their individual health and consequently the health of the nation.

In Tasmania there are two whole-time and two part-time Medical Inspectors of Schools. The salaries paid for the whole-time service commences at £500 *per annum*.

QUEENSLAND.

THE medical inspection of school children in Queensland at the present time is carried out by general practitioners as part-time medical officers of the Department of Public Instruction. There is no permanent professional officer in charge of the work and consequently it may be said that the medical branch is not organized as a service. The part-time medical officers examine a large number of children and record all defects found. The children requiring treatment are referred to hospitals. A staff of seven dentists has been appointed and dental inspection and treatment are carried out. In matters affecting the general administration of the medical inspection work, the Department of Public Instruction consults the Commissioner of Public Health. It will thus be seen that under existing conditions there is no opportunity for a special career in Queensland in this branch of preventive medicine.

WESTERN AUSTRALIA.

IN Western Australia there is one School Medical Officer, who works under the Health Department and whose duties are defined by the *Public Health Act, 1911-1919*. The number of children examined each year by the one medical officer is approximately 4,800, or 11% of the average number of children attending schools. The salary attaching to this position is £528 *per annum*. It will be recognized that until the service is properly equipped with a staff of medical inspectors, only the fringe of the problem can be attacked. The vast extent of the territory renders the task of the medical officer a difficult one and is an additional reason for a demand for assistance.

THE MENTAL HOSPITAL SERVICE.

THE study of psychiatry is included in the modern medical curriculum and every graduate in medicine is supposed to have a working acquaintance with the pathology and manifestations of mental disease. The study is an intensely interesting one, full of human incidents, arresting on account of its peculiar difficulties and by no means as depressing as the casual observer might think. But a few years ago the asylum service was unattractive, because no real attempt had been made to apply therapeutic measures or to build up a scientific conception of the various forms of mental disease. The old asylums were not hospitals, but places of restraint. To-day the spirit of research pervades the schools of psychiatry and more understanding is being brought to the nature of the processes. Unfortunately, there has arisen a strong movement outside the medical profession to divorce psychology from other chapters of physiology and from the purely medical sciences. While no one can deny that the great philosophers have of necessity endeavoured to investigate and define thought as an integral part of life and have advanced our knowledge in this way, the doctrines taught at the present time under the guise of psychology are so hypothetical and so grotesque that any attempt to base on them a conception of the ætiology and pathology of mental disease must lead to confusion and failure. Progress in medicine depends on a sound knowledge of the physical, chemical and biological processes of the body in health. Until more accurate knowledge is available concerning the real physiology of mental functions, a full understanding of disturbances of these processes must of necessity be limited. It therefore goes without saying that the field open to the student of psychiatry is immense and the prospects of successful progress are favourable. The modern hospital provides facilities for this study, although better opportunities would be created if what Kraepelin termed psychiatric clinics and special wards for the mild forms of mental affections were established in connexion with the larger general hospitals.

The Mental Hospital Services in the several States are controlled by Government Departments. Insanity is not a topic to be conjured with on a political platform. No Minister has yet found it a desirable bait to use in fishing for votes. The average man in the full enjoyment of his freedom is not greatly concerned with any programme aiming at the alleviation of the conditions of the insane or at the prevention of the incidence of these dreaded complaints. It is true that the stigma of insanity is no longer as prominent as it was, but the popular conception of insanity is very different from that of a disease of other organs or functions of the body. If thinking people would realize the national importance of the fact that approximately four persons out of every thousand are incapacitated by mental disease and that this means a stupendous loss to the community as a whole, perhaps more attention would be given to the task of dealing effectually with the problem and the lunacy services would be less starved than they are.

In the majority of the States of the Commonwealth the Mental Hospital Service does not offer bright prospects to young medical practitioners at the present time. The salaries payable, as will be seen, are better than they were, but it has been pointed out that a *locum tenens*, who need have no special previous training in psychiatry and whose responsibilities are very limited, is remunerated, in one State at least, at a rate higher than that of all other medical officers save the chief of the Department. Long service does not carry with it a pension, save in New South Wales, and in only two States is a pathologist employed to investigate the innumerable problems awaiting solution.

In New South Wales all the mental hospitals except two small private institutions are under the control of the State Government. Medical practitioners entering this service become public servants and devote their whole time to their duties. They are not allowed the right of private practice. The mental hospitals are under the direction of the Inspector-General, who is responsible for the whole service. The Inspector-General receives a salary of £1,350 *per annum* and has very important functions to fulfil. His responsibilities are great, but he has wide opportunities for the display of organizing abilities and is of necessity regarded as an authority in psychiatry. The appointments of all medical officers are made in the first instance by the Public Service Board. The mental hospitals are ten in number. They are situated at Callan Park, Gladesville, Parramatta, Kenmore, Rydalmere, Newcastle, Morisset, Stockton, Rabbit Island and Darlinghurst. In addition, there are reception houses at Darlinghurst,

Newcastle and Kenmore, a pathological laboratory at the University of Sydney and a psychiatric clinic known as Broughton Hall, near Callan Park. Junior medical officers are paid £350 *per annum*, with allowances valued at £100, including residence. Resident medical officers are paid £400, rising to £550 *per annum*, with allowances valued at £100. Medical superintendents receive from £750 to £900 *per annum*, with allowances valued at £124. The Pathologist is a whole-time officer and receives the same salary as a senior medical officer.

The majority of the patients admitted to the mental hospitals as Callan Park, Gladesville, Parramatta and Kenmore are sent directly from the Reception House. There is in each of these institutions a special admission hospital, to which all patients are sent on first admission. If their diseases are of a recoverable form, they are treated in this special hospital during the whole of their residence. The hospital at Newcastle is for imbecile children. The hospitals at Rydalmere, Morisset and Stockton are reserved chiefly for patients with chronic disease. These patients are transferred from the admission hospitals to these hospitals. Adult imbeciles are received into the hospital at Rabbit Island and at times into the institution at Stockton.

The Reception Houses are merely places for observation of persons coming under the control of the Department, but not for treatment. They are transferred from these places to the mental hospitals if their symptoms indicate that this course is necessary.

In Victoria the Inspector-General has the same control as the Inspector-General in New South Wales. He receives a salary of £1,500. Although the appointment of medical officers of the Victorian Lunacy Service is subject to the provisions of the *Public Service Act*, we understand that a sub-committee of the Cabinet is now assuming the functions of the Public Service Commissioner. Junior medical officers receive a salary of from £492 to £552 with partly furnished quarters, subject to a deduction of £60 for rent, fuel, light, water, vegetables and laundry. Senior medical officers receive a salary of from £576 to £650 *per annum*, subject to a charge of £72 for rent, fuel, light, water, vegetables and laundry. Medical superintendents receive a salary of from £700 to £800, subject to a deduction of £100 for rent, fuel, light, water, vegetables, milk and laundry. The Pathologist is in receipt of a salary of from £700 to £800.

In Queensland the Inspector of Asylums holds the position of Medical Superintendent of the Goodna Hospital for the Insane as well. He is responsible for the whole service. The Goodna Hospital is the largest asylum in Australasia. The Inspector of Insane receives a salary of £1,000 *per annum* with residence. The junior assistant medical superintendents are paid from £475 to £575 *per annum* with allowances valued at £90. Senior assistant medical superintendents are paid from £525 to £625 *per annum* with allowances valued at £90. The medical superintendents are paid a salary from £650 to £750 *per annum* with allowances valued at from £90 to £120.

The mental hospital service in South Australia is by no means satisfactory. The service is under the direction of the Inspector of Hospitals, whose duties extend beyond the service. The Medical Superintendent at Parkside, the only mental hospital, received a salary of £700 with house, light and partial board.

In Western Australia the Inspector-General of the Insane resides at the Hospital for the Insane at Claremont. He is responsible for the institution and for the general control of the certified insane throughout the State. He receives a house with allowances and a salary of £804 *per annum*. The Medical Superintendent is in receipt of a salary of £708 *per annum* with house and allowances. Junior medical officers are paid £320 *per annum* with board and quarters and senior medical officers from £408 to £528, also with board and quarters.

The Mental Hospital of Tasmania is situated at New Norfolk and is under Government control. The Medical Superintendent is responsible for the institution and its inmates, while an organized service as it exists in the larger States does not exist. The Medical Superintendent receives a salary of £657 *per annum* with house and other perquisites valued at £93.

Mention should be made of the recent establishment of a Chair of Psychiatry at the University of Sydney. This and other signs of general recognition of the importance of the services would seem to indicate that in the near future the conditions of service in many of the States will improve and that there may arise a career for aspiring members of the medical profession who are attracted by the problems of psychiatry.

Medical Registration.

SINCE the publication of the last Education Number of THE MEDICAL JOURNAL OF AUSTRALIA no amendments have been introduced in any of the Australian States in connexion with the Acts dealing with registration.

Conditions and qualifications necessary for registration are different in the several States and it is much to be regretted that this is so. We look forward hopefully to the time when the Federal Parliament will be the authority that will control all regulations dealing with the registration of practitioners of medicine. In the meantime, it is obligatory for a medical practitioner to secure registration in each State in which he wishes to practise.

Fees for Registration.

In Victoria a fee of five guineas is required to be paid on application for registration. A further fee of five shillings is charged for the registration certificate.

In South Australia there is an annual registration fee of one guinea. Medical practitioners, however, may pay the sum of five guineas either at the time of registration or subsequently as a commutation of all renewal fees.

In Tasmania there is a registration fee payable of three guineas.

Qualifications for Registration.

It will be seen from the following that there is no uniformity in regard to the qualifications entitling medical practitioners to be registered in the several States. For the sake of clearness the provisions contained in the six Acts are set out in tabular form.

The following persons are entitled to be registered in the respective States:

New South Wales.

(*i.*) Graduates of Australian universities.

(*ii.*) Graduates of universities in the United Kingdom.

(*iii.*) Diplomates of the recognized medical corporate bodies in the United Kingdom, entitled to registration in the United Kingdom.

(*iv.*) Persons who are or have been appointed medical officers in His Majesty's sea or land services.

(*v.*) Persons entitled to practise in a foreign country which has entered into reciprocal arrangements with Australia in this regard; provided that they have passed through a course of study of not less than five years' duration.

(*vi.*) Persons who have passed through a course of study of not less than five years' duration in a foreign country and are entitled to practise in that country and who pass an examination prescribed by the Senate of the University of Sydney.

No person who is a German or Austrian subject, or who possesses a German or Austrian degree only, can be registered.

Victoria.

(*i.*) Graduates of the Australian universities.

(*ii.*) Persons who have passed through a course of study of not less than five years' duration in a British university, college or body, or in any foreign university, college or body recognized in that country and who possess a diploma or degree entitling them to practise in that country, provided that the same arrangements obtain in that country for graduates of the University of Melbourne.

(*iii.*) One person holding the qualifications of the Boston Homœopathic University and College or of the New York

Homœopathic Medical College and Hospital may be registered each year.

Queensland.

(*i.*) Graduates of the Australian universities.

(*ii.*) Persons who have passed through a course of study of three years' duration, who have passed the examination prescribed in the country in which they have studied and who are entitled to registration in that country.

(*iii.*) Persons who are or have been duly appointed medical officers in His Majesty's sea or land services.

South Australia.

(*i.*) Graduates of a university in Australia or New Zealand.

(*ii.*) Persons registered or entitled to be registered in the United Kingdom.

(*iii.*) Persons who have passed through a course of study of five years' duration in a foreign country, provided that the standard is not lower than that recognized in South Australia and who have received a degree or diploma and are entitled to be registered in that country, provided that equal rights are granted in that country to persons registered under the South Australian Act.

Western Australia.

(*i.*) Graduates of the universities of Australia.

(*ii.*) Persons entitled to registration in the United Kingdom.

(*iii.*) Graduates of British or foreign universities who have passed through a course of study of not less than three years' duration.

Tasmania.

(*i.*) Graduates of all British universities.

(*ii.*) Persons entitled to be registered in the United Kingdom.

(*iii.*) Persons who are medical officers in His Majesty's sea or land services.

(*iv.*) Graduates of a medical college of Class "A" in one of the States of America, provided that they have passed through a course of study of four years' duration and have received a degree or diploma from that college and provided that they hold a certificate or licence entitling them to practise in one of the States of America.

Methods of Dealing with Offences.

It may be of interest to readers if we point out the further lack of uniformity in the several medical Acts from other points of view. No two States appear to have exactly the same methods of dealing with registered practitioners who are guilty of various offences. In New South Wales, for example, if it appears to the satisfaction of the Board that any person registered as a legally qualified practitioner

(*a.*) has ceased to possess or does not possess the qualifications in respect of which he was registered; or

(*b*) has been convicted or any felony or misdemeanour; or

(*c*) has been guilty of infamous conduct in a professional respect, it is lawful for the Board to remove such person's name from the Register.

Persons whose names have been removed under these provisions, have the right to appeal to the Supreme Court and such appeal takes the form of a re-hearing. In the case of a charge of infamous conduct the Board makes due inquiry sitting at an open court and the person charged has an opportunity of defence either in person or by counsel.

Any person found guilty of making false statements in examination before the Board or with regard to either the fact of registration or the certificates produced for registration purposes is guilty of a misdemeanour and may be imprisoned with or without hard labour for any period up to three years. These provisions of the Act, as will be seen at once, give the Medical Board ample power of dealing most effectively with offenders.

In Western Australia the *Medical Act* is of old standing—1894—but nevertheless is very complete. The name of any person registered under the Act, who before or after registration is convicted of any felony or misdemeanour or of any other offence which in the opinion of the Board renders him unfit to practise or who after due inquiry is adjudged by the Board to have been guilty of infamous conduct in a professional respect, shall be erased from the Register. No mention is made of any right to appeal. Further, any person who falsifies the Register or presents false documents or is guilty of personation or makes a false declaration or false statement or falsely advertises himself as a practitioner is liable, upon conviction, to be imprisoned for any term not exceeding three years.

According to the Victorian Act a person forging or obtaining a certificate under false representation or falsely admitting or publishing himself as having obtained such a certificate, is guilty of a misdemeanour and is liable to imprisonment with or without hard labour for any period not exceeding three years. No mention is made in the Act of the power or otherwise of the Board to erase from the Register the name of a person who has been found guilty of infamous conduct in a professional respect. It would be interesting to see a test case brought before the Board.

In South Australia the name of a person may be removed from the Register for reasons very similar to those obtaining in New South Wales. Here, however, the removal is effected by order of the Supreme Court or a Judge thereof on application by motion made in that behalf by the Board or Registrar. The Supreme Court, however, has the power of restoring the erased name by order, if it so determine.

The Queensland *Medical Act* dates from 1867. Under this Act the Medical Board has no power of dealing with a registered practitioner who is guilty of a felony or misdemeanour. Any prosecution arising from such an offence would have to be undertaken by the State under the *Criminal Code Act* and would have to be tried in the Criminal Court.

In Tasmania the name of a person may be removed from the Register by an order of the Supreme Court or Judge thereof, on application by summons taken out in that behalf by the Medical Council, for fraud, felony or misdemeanour or infamous conduct in any professional respect. The name may subsequently be restored by order of the Supreme Court if the Court so determine and any person whose name has been removed, has the right of appeal to the Full Court. The Tasmanian Act, however, contains several clause of such an extraordinary nature that we cannot refrain from reproducing them in full. Intending practitioners in Tasmania will do well to note them. These clauses are as follows:

"If any registered medical practitioner in active practice without reasonable excuse (the proof of such reasonable excuse being upon him) refuses or fails to consult with or render professional assistance, in consultation, to any other registered medical practitioner seeking such advice or assistance, he shall be guilty of an offence and shall on conviction forfeit and pay for each offence a penalty of not less than fifty pounds nor more than two hundred pounds.

"The foregoing expression 'reasonable excuse' shall not include any resolution or bye-law or any agreement of any company, association or body of persons whatsoever, whether verbal or written.

"The registered medical practitioner seeking any such advice or assistance as hereinbefore mentioned shall in every case be legally liable to pay to the registered medical practitioner rendering such advice or assistance a fair and reasonable fee (including expenses, if any, therefor) and shall if requested to do so pay such fee in advance.

"Any person, association, company or body of persons who directly or indirectly prevent or endeavour to prevent or aid in preventing in any way whatsoever any medical practitioner, nurse or other person applying for, accepting or holding any appointment or position in any State-aided hospital or charitable institution, shall be guilty of an offence and shall on conviction forfeit and pay for each offence a penalty of not less than twenty-five pounds nor more than two hundred pounds."

The Statistics of the Medical Profession.

ALTHOUGH the Medical Registers of the six Australian States are admittedly unsafe guides on which to compile statistics, some interesting facts can be gleaned from them. The Registers of New South Wales, Victoria, Western Australia and Tasmania contain the names of all medical practitioners registered in the respective States who are known or supposed to be alive. Their addresses are given, although in many instances the addresses are inaccurate. The Victorian Medical Register is probably the most inaccurate and due allowance for the erroneous entries has to be made. The Queensland Register is divided into two parts, the first containing the names and addresses of medical practitioners resident in the State; the second part contains the names, but not the addresses, of practitioners registered in Queensland but residing elsewhere. The addresses of practitioners not resident in the State are given in only a few instances in the South Australian Register.

In 1920 there were the names of 3,953 medical practitioners supposed to be resident in Australia in the six Registers. In 1922 this record has been increased to 4,164. In other words, the sum of the practitioners whose addresses are given in each of the Registers as being in the respective State, is 4,164. This figure is obviously too high. In many instances the address is merely a postal one, such as "care of" an agent or a banking company. A relatively large number of former addresses are retained, presumably because no information concerning the whereabouts of the individual practitioners was available to the Medical Boards. The following figures must be discounted for these reasons:

	Number of Names on Register.	Number Resident in State.
New South Wales	2,316	1,522
Victoria	2,031	1,558
Queensland	831	414
South Australia	385	328
Western Australia	384	202
Tasmania	211	140
Total for Commonwealth	—	4,175

It is probable that the number of practising doctors in the Commonwealth does not exceed 3,500. This would give an average of one medical practitioner to each 1,550 members of the community. In New South Wales the figures taken from the Register are probably about one hundred in excess. On the basis of the figures given there would be one doctor to each 1,377 persons. If the actual number of practising doctors is 1,420, the proportion would be one to 1,476. According to the annual report of the New South Wales Branch of the British Medical Association, there were in March, 1922, 1,203 members of the Branch. This would represent 79% of the number given in the Register, or 84.7% of the estimated figures. It appears that about 55% of the doctors in the State are resident in the metropolis of Sydney or its suburbs. The number of practitioners has increased by 145 during the past two years.

In Victoria the proportion of inhabitants to each medical practitioner would be practically one thousand to one, if the figures of the Register were reliable. There is reason to assume that the actual number of practising doctors does not exceed 1,250, which would yield one doctor to 1,224 persons. The number of doctors has increased to a smaller extent than has that in New South Wales. The increase would appear to be only twenty-eight, if the figures in the Register could be used for this purpose. Some reduction, however, has been made in regard to practitioners no longer living and it is therefore probable that the increase is greater. The number of members of the Victorian Branch of the British Medical Association stood at 982 at the time of the annual meeting, while 1,022 names have been printed in the list published in THE MEDICAL JOURNAL OF AUSTRALIA in February. Two years ago there were 961 members. This would account for an increment of sixty-one members. The proportion of members of the profession as enumerated in the Register who are members of the Victorian Branch, would appear to be 65.5%, but on the estimated figures it should be corrected to about 81.75%.

The Queensland Medical Register gives 414 names of medical practitioners resident in the State, which yields a ratio of one doctor to 1,825 persons. In 1920 there were 372 names, so that the increase is forty-two. It is uncertain whether the figure given is appreciably too high. There are some names given of members who are not in practice, while a few postal addresses are included. The Queensland Branch of the British Medical Association had 301 members at the time of the annual meeting in December, 1921, while the list published in February contained 308 names. The ratio of members to the total number of practitioners is thus 74.4% if the figures from the Register be taken. The actual percentage is probably a little higher.

The South Australian Register contained 339 names of medical practitioners resident in the State in 1920, while the Register of 1922 contains 328 names. This would be equivalent to one medical practitioner to each 1,509 inhabitants. At the time of the last annual meeting in June, 1921, there were 271 members of the South Australian Branch of the British Medical Association. At the end of the year the number had increased to 280. The members of the Branch therefore constitute 86.6% of the members of the medical profession. Judged from this figure and from the ratio of doctor to persons, it would seem that the Register must be accurate.

A curious discrepancy exists between the figures derived from the Register of Western Australia and the number of members of the Branch of the British Medical Association. The Register for the current year discloses the names of 202 practitioners residing in the State. This figure is ten less than the number in the 1920 Register. It would seem that one medical practitioner had to look after the welfare of 2,138. While the country doctor in Western Australia and also in some parts of other States has a *clientèle* of well over two thousand persons, this proportion is rarely encountered in cities. The members of the Branch of the British Medical Association number 143, as compared with 137 in 1920—an increase of seventeen. It is pointed out in the annual report that there are 190 medical practitioners in the State. This is equivalent to 79.5% of the practitioners being members of the Branch. The proportion calculated on the official figures would be 74.75%.

Tasmania is said to have 140 medical practitioners registered and resident in the State. This number represents an increase of seventeen since 1920. It also represents a ratio of one doctor to each 1,525 persons. We confess to a small faith in the Tasmanian Medical Board or its Register. The Tasmanian Branch of the British Medical Association contains seventy-eight members, so that the members would constitute but 55.7% of the total number of registered medical practitioners resident in the State. The official figures seem to be too high.

The General Medical Council in Great Britain follows an excellent plan of requiring every registered medical practitioner to notify his change of address. From time to time a notice is sent to each practitioner at the address appearing in the Medical Register, requiring him to verify or amend the address. If the form is not returned as directed, the name is removed from the next issue of the Register. A name thus removed can be restored. From time to time lists of the names of medical practitioners who have not replied to these circular notices, are published in *The British Medical Journal* prior to the removal of the names from the Register. A reform is needed in Australia. If the State Governments would surrender their sovereign rights in regard to the registration of medical practitioners and a Federal Medical Act were substituted for the six State Acts, it would be an easy matter to adopt the expedient of the General Medical Council and thus to guarantee an Australian Medical Register which would be reliable and in consequence of considerable usefulness.

Membership of the British Medical Association.

ANY medical practitioner who is registered in accordance with the provisions of the *Medical Act* of the State of Australia in which he resides and practises, is eligible for election as a member of the British Medical Association. The election of a medical practitioner is effected by the Branch Council after nomination by two or more members of the Association. Candidates for membership are required to give an undertaking that they will, if elected, abide by the Regulations and By-Laws of the British Medical Association and by the Rules of the Branch to which they may at any time belong and that they will pay the annual subscription fixed by the Branch. Members attached to the Branches in Australia have all the privileges and obligations of members of the British Medical Association and receive both *The British Medical Journal* and THE MEDICAL JOURNAL OF AUSTRALIA. When a member moves from the area of one Branch to that of another, he becomes automatically transferred to the latter. Members of the Association resident outside the area of any Branch may be attached to a Branch conveniently situated by the Council of the Association.

The New South Wales Branch offers to medical students attachment to the Branch as Honorary Associates without subscription. Honorary Associates of this Branch are permitted to attend scientific and at times business meetings of the Branch, but may neither speak nor vote. THE MEDICAL JOURNAL OF AUSTRALIA is offered to Honorary Associates at a reduced annual rate of subscription. If similar privileges are offered to undergraduates in medicine of the Universities of Melbourne and Adelaide, the same concessions in regard to THE MEDICAL JOURNAL OF AUSTRALIA will obtain.

The subscription of members of the New South Wales Branch is five guineas *per annum*. Members pay three guineas within the first three years of graduation. The same subscription is paid by those who have retired from active practice or by practitioners who have reached the age of seventy-five years. Permanent whole-time medical officers of the various public services pay four guineas *per annum*.

The annual subscription for town members of the Victorian Branch is four guineas and for country members three guineas and a half. Junior members pay two and a half guineas.

In the case of the Queensland Branch, the annual subscription for town members is five pounds, for country members is four pounds and for junior members two pounds ten shillings.

Members of the South Australian Branch residing in Adelaide pay an annual subscription of four pounds five shilling, which entitles them to use the University Library. Country members are required to pay three pounds fifteen shillings and graduates of the Adelaide University of less than three years' standing three guineas.

The annual subscription of members of the Western Australian Branch residing in the metropolitan-suburban area is four guineas; that of country members is three guineas, while junior resident medical officers of public hospitals are admitted to membership for two guineas *per annum*.

The annual subscription to the Tasmanian Branch is four guineas.

Medical Students' Societies.

THE medical freshman of the present day at the Australian Universities is generally an individualist. His school days have been spent at one of the State schools or perhaps at one of the great public schools. The majority of the latter are day schools and consequently he is not possessed to any large extent of that corporate feeling that attaches itself, for example, to the public school system as it exists in England. On becoming a first-year student he may enter one of the colleges affiliated with the University, but, as is more generally the case, he probably lives at home and attends University lectures daily. There is great danger, therefore, that a student may gradually regard his medical school as a place where he has to spend a certain amount of time in study, merely for the purpose of obtaining a degree that will enable him to earn a comfortable living. If he continues in this isolated course, he will probably succeed in getting his degree and will no doubt be able to earn his living quite successfully, but he will miss much that is almost essential if he is to take his rightful place in the ranks of the profession. He must realize quite early in his career that it is necessary for him to get into the right "atmosphere." The University Medical Society will help to attain that end.

The first-year "med." is apt to look askance at a medical society for students. He will attend a meeting and understand but little of what is going on, so that possibly he will proceed to leave the society severely alone until the time for the annual dinner comes round! He does not realize that it will do him good to rub shoulders with men of other years, apart from the fact that he will thereby unconsciously absorb a certain amount of knowledge. As well as the serious side of our student societies, there is much that is amusing and light-hearted and frivolous, much that adds a little spice to existence. We have only to dip into the latter pages of a copy of the *Speculum* to understand this. After graduation the University Medical Society keeps the graduate in touch with his *alma mater* and promotes that *esprit de corps* that is so necessary.

The Sydney University Medical Society has been in existence since 1886, having been founded in that year by the late Thomas Anderson Stuart. The objects of the Society were then stated to be the provision of a meeting ground for teachers, graduates and undergraduates, the furtherance of the interests of the medical school and the development of scientific knowledge and general culture. *The Sydney University Medical Journal* first made its appearance in 1904 as an annual publication. The journal now appears twice a year and is a judicious combination of serious articles and much that is written in lighter vein. All graduates and undergraduates of the Medical School are eligible for membership and, in addition, membership is open to any medical practitioner whose medical qualifications are recognized by the Sydney University. The membership subscription for senior undergraduates is seven shillings and six pence and for junior undergraduates five shillings *per annum*. Graduates may become life members on payment of one guinea, while the expenditure of another guinea will insure receipt of the journal by them for four years.

The Medical Society of the University of Melbourne is very much alive. It was founded "to foster a more cordial understanding and a closer relationship between medical students and to advance their knowledge and further their interests generally." The membership subscription is five shillings and this includes a copy of that well-named and delightful production, *The Speculum*. Any member of the Society or qualified practitioner who pays the sum of five guineas, may be enrolled a life governor by vote of the members at the annual meeting. The President and Vice-Prsident are required to be members of the Victorian Branch of the British Medical Association. Membership of the Society is advantageous to the student in other ways. Arrangements are made at the Women's Hospital for a voluntary course of obstetrics in connexion with the outdoor department of that institution. Here members have opportunities of attending women in their confinements under conditions somewhat resembling those of private practice.

The Adelaide Medical Students' Society was founded in 1889 in order "to further the interests of medical work amongst students and to provide intercourse amongst its members." Membership is open to graduates of the University of Adelaide and to graduates of any recognized university. The subscription is ten shillings *per annum* for undergraduates and five shillings for graduates. Payment of three guineas secures life membership. *The Adelaide Medical Students' Review* was first published in 1890 and chronicles all that is of importance to Adelaide students in a complete and capable fashion.

CANCER RESEARCH SCHOLARSHIP.

AN advertisement will be found in another part of this issue calling for applications for appointment to the John Grice Cancer Research Scholarship. The candidate appointed will be required to take up residence at the Melbourne Hospital and will be given facilities for prosecuting research into this highly important and difficult subject. The fact that a formidable army of workers is engaged in almost every country in attacking the cancer problem need not discourage practitioners with an inquiring type of mind and ability to conduct research. It is hoped that there will be a good response to this invitation.

Obituary.

MYRTLE SPERREY WARDLAW.

IT is with great regret that we have to record the death of Mrs. (Dr.) Wardlaw, *née* Myrtle Sperrey Bromley, on April 27, 1922, at Hunter's Hill, Sydney.

WILLIAM COOKE FAULKNER.

THE news recently published in the daily press of the death by accident on April 20, 1922, of Dr. William Cooke Faulkner, of Sunbury, Victoria, caused much regret among his friends and colleagues.

ALEXANDER MACKEY JOHNSON.

WE regret to announce the death of Dr. Alexander Mackey Johnson, which took place at Elizabeth Street, Sydney, on April 27, 1922.

Books Received.

PRACTICAL ANATOMY, by Richard J. A. Berry, M.D. (Edin.), M.D. (Melb.), F.R.S.E., F.R.C.S. (Edin.); Second Revised and Illustrated Edition, 1922. Melbourne, Sydney, Adelaide and Brisbane: Robertson & Mullen's, Limited; Demy 8vo.. Volume I.: Superior and Inferior Extremities, pp. 471, with 20 plates. Price: 22s. 6d.. Volume II.: Thorax and Abdomen, pp. 430, with 15 plates. Price: 22s. 6d.. Volume III.: Part I., Head and Neck and Organs of Special Sense, pp. 350, with 10 plates. Price: 20s.. Part II.: Central Nervous System, pp. 256, with 22 figures. Price: 17s. 6d..

Medical Appointments.

DR. T. O. F. ALSOP (B.M.A.) has been appointed Government Medical Officer at Binalong, New South Wales.

* * * *

DR. HARVEY SUTTON, O.B.E. (B.M.A.), has been appointed a member of the State Children Relief Board of New South Wales.

* * * *

THE undermentioned have been appointed Government Medical Officers in Queensland: DR. D. F. FINLAY (B.M.A.) at Goondiwindi; DR. N. J. MACKAY (B.M.A.) at Kingaroy; DR. B. B. BARRACK (B.M.A.) at Texas.

Medical Appointments Vacant, etc.

FOR announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xxii..

DEPARTMENT OF PUBLIC HEALTH, NEW SOUTH WALES: Third Medical Officer.

UNIVERSITY OF MELBOURNE: John Grice Cancer Research Scholarship.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C..

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney	Australian Natives' Association Ashfield and District Friendly Societies' Dispensary Balmain United Friendly Societies' Dispensary Friendly Society Lodges at Casino Leichhardt and Petersham Dispensary Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney Marrickville United Friendly Societies' Dispensary North Sydney United Friendly Societies People's Prudential Benefit Society Phœnix Mutual Provident Society
VICTORIA: Honorary Secretary, Medical Society Hall, East Melbourne	All Institutes or Medical Dispensaries Australian Prudential Association Proprietary, Limited Manchester Unity Independent Order of Oddfellows Mutual National Provident Club National Provident Association
QUEENSLAND: Honorary Secretary, B. M. A. Building, Adelaide Street, Brisbane	Brisbane United Friendly Society Institute Hampden District Hospital, Kuridala, North Queensland Stannary Hills Hospital
SOUTH AUSTRALIA: Honorary Secretary, 3, North Terrace, Adelaide	Contract Practice Appointments at Renmark Contract Practice Appointments in South Australia
WESTERN AUSTRALIA: Honorary Secretary, 6, Bank of New South Wales Chambers, St. George's Terrace, Perth	All Contract Practice Appointments in Western Australia
NEW ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington	Friendly Society Lodges, Wellington, New Zealand

Diary for the Month.

MAY 9.—New South Wales Branch, B.M.A.: Ethics Committee.
MAY 10.—Western Australian Branch, B.M.A.: Council.
MAY 10.—Melbourne Paediatric Society.
MAY 11.—Victorian Branch, B.M.A.: Council.
MAY 11.—City Medical Association, New South Wales.
MAY 12.—New South Wales Branch, B.M.A.: Clinical Meeting.
MAY 12.—Queensland Branch, B.M.A.: Council.
MAY 12.—South Australian Branch, B.M.A.: Council.
MAY 15.—Illawarra Suburbs Medical Association, New South Wales.
MAY 16.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
MAY 17.—Western Australian Branch, B.M.A.: Branch.
MAY 23.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.
MAY 24.—Victorian Branch, B.M.A.: Council.
MAY 25.—South Australian Branch, B.M.A.: Branch.
MAY 25.—Brisbane Hospital for Sick Children: Clinical Meeting.

Editorial Notices.

MANUSCRIPTS forwarded the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4635.)

SUBSCRIPTION RATES.—Medical students and others not receiving the THE MEDICAL JOURNAL OF AUSTRALIA in virtue of membership of the Branches of the British Medical Association in the Commonwealth can become subscribers to the journal by applying to the Manager or through the usual agents and book-sellers. Subscriptions can commence at the beginning of any quarter and are renewable on December 31. The rates are £2 for Australia and £2 5s. abroad *per annum* payable in advance.